# A RETROSPECT AND PROSPECT STUDY ON PEDAGOGICAL PRACTICES AT THE PRIMARY SCHOOLS IN NEPAL

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# ACKNOWLEDGMENT

Learning of the students is the most important consideration in education. Students' learning is reliant on the teaching learning activities in the classroom. I had the opportunity to lead several research studies on classroom teaching learning in the primary schools of Nepal under the Formative Research Project in 2002-2008. This project provided me with an opportunity to follow up primary level classrooms for 7 consecutive years with focus on various aspects of classroom teaching learning – classroom delivery, teacher's transfer of training skills, school based assessment, learning needs, life skills education, conditions for classroom transformation, etc. Except in selected project supported classrooms, teaching learning practices were found mostly to be teacher dominated, lecture oriented and rote learning emphasized.

It was a puzzling and a saddening experience to me that during the 7 years period of Formative Research Project, which embraced closing years of Basic and Primary Education Programme, Education for All period (2004-2009) and planning period of School Sector Reform, quality of classroom teaching learning was not found to have improved satisfactorily despite recurring emphasis on quality improvement in the policies and programmes. Classroom teaching learning became a puzzle box to me. Understanding the puzzle and unfold the box became my interest and motive.

The topic and proposal started to take its shape in my mind. Encouragements and discussion sessions with the then Executive Director of CERID, Prof. Hridaya Ratna Bajracharya, broadened my vision and helped shape my study. He directed me to study some of the important books on the topic. At the same time Prof. Lars Monsen of Leelehammer College, Norway, who visited Nepal as technical advisor in the Formative Research Project, also provided his valuable input in my Ph. D. study proposal as well as helped me enormously by sending a number of related articles. I thank both Prof. Bajracharya and Prof. Monsen for shaping my study at the initial stages.

Then came University searching stage with the intention to get a supervisor who would guide to complete the study on time as well as meet the standard. There were several correspondences and possibilities. Hearing a lot about Lucknow University and the

professors there from my friend Rajendra Shah, Lucknow University became my priority. My first visit was to Lucknow University which was accompanied by him. I had opportunity to meet Prof. Akhilesh Chaube, then Dean of Faculty of Education, Lucknow University. Prof. Chaube kindly provided his time to go thorough part of my Ph. D. study proposal. He asked a couple of questions and provided suggestions as well. Some of the questions he asked were the ones not asked before to me, but were so significant in the study. I thus found the supervisor I was looking for and wished he would take me under his supervision. As there was possibility to get enrolled in Lucknow University and enrolment process was going to be soon, I started my preparation works for the study. I am truly indebted to Prof. Chaube, who is now Head of Department of Education, Lucknow University, for all his time, guidance, suggestions and leading me to produce this thesis in its present shape. I thank Mr. Rajendra Shah for his correct suggestion and facilitation for my joining Lucknow University.

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# ABBREVIATIONS

| | |
|---|---|
| ARNEC | All Round National Education Committee |
| BPE | Basic and Primary Education |
| BPEP | Basic and Primary Education Project/Programme |
| CAS | Continuous Assessment System |
| CDC | Curriculum Development Centre |
| CERID | Research Centre for Educational Innovation and Development |
| CFS | Child Friendly School |
| CT | Critical Thinking |
| DOE | Department of Education |
| EFA | Education for All |
| FGD | Focus Group Discussion |
| FOE | Faculty of Education |
| GD | Group Discussion |
| ICT | Information Communication Technology |
| MOE | Ministry of Education |
| MOEC | Ministry of Education and Culture |
| MOES | Ministry of Education and Sports |
| NCED | National Centre for Educational Development |
| NEC | National Education Commission |
| NESP | National Education System Plan |
| NNEPC | Nepal National Educational Planning Commission |
| PEDP | Primary Education Development Project |
| PEP | Primary Education Project |
| SC | Save the Children |
| SSR/P | School Sector Reform/Plan |
| UN | United Nations |
| UNDP | United Nations Development Program |
| UNESCO | United Nations Education Scientific and Cultural Organization |
| UNICEF | United Nation Children's Fund |
| USA | United States of America |

# CHAPTER I

# INTRODUCTION TO THE STUDY

This chapter presents the background, rationale, definition of key terms, delimitations, objectives of the study and analysis of the data/information. In this course the study highlights the development of education in Nepal, describes pedagogical emphasis at different time intervals and puts forth rationale for undertaking this study so as to contribute to the quality education at the primary level in Nepal through improvement of pedagogical practices. Other related components stated in the opening statement of this paragraph are elaborated in the respective sections in this chapter.

## 1.1 Background of the Study

Development of education, in modern sense, in Nepal is a recent phenomenon. However, indigenous and religious type of education has its roots trailing long back in history. Religious and classical Sanskrit systems of education dominated a longer period of time in the Nepalese education system. In the history of Nepalese education, 1853 AD marked the entry of the English system of education by the establishment of Durbar High School by Jung Bahadur Rana after his return from his visit to Great Britain. The English type followed the British model of India, which was at one time accredited on the basis of the Oxford and Cambridge examinations. Several others types of education such as Buddhist Bihar, Hindu Ashram, and Gandhian Basic Education existed side by side. (College of Education, 1956).

Nepal, a land-locked and predominantly agricultural country, lacked both the political will as well as adequate planning for overall development of education until the establishment of democracy in 1950. After establishment of democracy in Nepal, the first over all educational development initiative was taken by forming the Nepal National Educational Planning Commission (NNEPC) in 1954. Quality of education has been the major focus since this Commission and quality remained an anticipated vision so far. This report clearly demands respect for the individual differences and intelligent adaptation of the curriculum to various local conditions and to the individual differences of children. In

effect this is related to child centred principles. Thus the quality of classroom teaching learning practices seem to have derived an attention and an emphasis from the very first educational commission in Nepalese education system after establishment of democracy in Nepal through a popular movement.

All Round National Education Committee (ARNEC) also recognized that there exist differences among individuals physically, mentally and affectively. Just as a doctor diagnoses a disease on the basis of history and various tests and then prescribes treatment, teaching should also be based on the diagnosis of the student's history, physique, feeling, and mental development (Ministry of Education, i.e. MOE, 1961). This statement implies a diagnostic and individualized approach in teaching. The next education plan, i.e. National Education System Plan (NESP) was not explicit on the issues of classroom pedagogical approaches. It just intended to conduct research to improve teaching methods for each subject. The intention was on use of scientific methods in teaching learning practices (MOE, 1971).

The better prospects with regard to classroom pedagogical approaches as intended in 1956 and 1961 education commission reports seems to have not been implemented into classroom practices. The common classroom pedagogical practices seemed to be not effective as pointed out by the National Education Commission (NEC) in 1992. This commission's report stated, "The teaching learning situation in primary schools is rather depressing…. Students are encouraged to learn by rote, and assessments are made on the same basis." Latest commission, i.e. High Level National Education Commission in 1999 raised some issues related to diversity education. This report pointed out the inability of primary level education to represent various language groups, cultural diversity and regional needs. This commission suggested reformative teaching at the primary level.

A cursory retrospective analysis of the pedagogical emphasis of these education commission reports indicates lack of a unified and coherent pedagogical development in the school system in Nepal. These endeavours seems not have been built upon practicing what has been intended and building upon the existing practice. Reform process seems to be erratic and lacked a sustained endeavour.

In the historical lane of the development of primary education system in Nepal was then implemented Primary Education Development Project in 1984, Basic and Primary Education Project (BPEP)-I in 1992, BPEP-II in 1997, and Education for All (EFA) in 2002. All these education plans focused on quantitative expansion as well as on qualitative improvement. BPEP-II (MOE, 1997) and EFA (Ministry of Education and Sports, i.e. MOES, 2002; MOES, 2003a) documents envisioned child centred education regarding teaching learning at the primary level in Nepal.

Another emerging concern in relation to classroom pedagogy is education for diversity. Nepal is a diverse country with great physiographical, environment, and cultural variations. Topographically Nepal has the plain's Terai region in south bordering India and highest mountain range in the north bordering China and environment varies from South to North. Population census, 2001 registered 101 different caste groups, 92 language groups, and 10 religious groups indicating cultural diversity of the country (Department of Education, i.e. DOE, 2003). Interim constitution of Nepal respects this diversity with educational provisions such as, "Each community will have right to receive basic education in mother language as provided by the law" (MOES, 2008).

Commitment for 'quality primary education' is being reiterated from one project/programme to another in Nepal. There is also a progressive refinement in defining and linking quality education to children's learning. For example BPEP-II emphasized, "Teachers will be able to use appropriate method of teaching to achieve the objectives of the lesson." (MOE, 1997). 'Education for All' emphasized, "inclusion of cultural, linguistic and other social values of the local communities in the education system." (MOES, 2003b). 'School Sector Reform' (SSR) proposes, "… promote independent learning by students being educated under diverse situations… Local curriculum, content and materials will be developed… A child's mother tongue will be employed as the medium of instruction up to grade three… Flexible instructional arrangements will be developed and employed…" (MOES, 2008).

It is expected that a study on the pedagogical intentions and practices in retrospect would provide the direction of pedagogical development in the primary level education in Nepal. Present pedagogical emphasis and practices would help to track pedagogical

improvement trend at present. Past and present scenario of the pedagogical practices would provide ground to analyze pedagogical prospect and suggest a framework that could be adopted to improve classroom teaching learning practices in the classrooms of primary level in Nepalese schools.

## 1.2 Rationale of the Study

Pedagogical practices in the Nepalese schools are mainly teacher dominated, treating students as homogenous group, and laying high emphasis on rote memorization. A blanket pedagogical approach of teaching the whole class in the same way and in the same pace all the time is not conducive to the children in general and specially for those who differ from the majority in the classroom in some way in particular. Slogan 'quality education for all' needs to pay attention to the appropriateness of pedagogy to the child at the individual level.

At present there are discrepancies found in a number of supports provided to the teachers and practices if these supports and practices are to be analyzed in terms of better pedagogical approaches such as child centred education. The main discrepancies are related to these aspects: 1) provision of single national level curriculum and single textbook, whereas in a child centred education curriculum is normally constructed according to the interests and needs of the pupils with a variety of resources and activities (Hawes and Hawes, 1932); 2) emphasis on norm referenced test while in a child centred approach criterion-referenced test is used with formative emphasis (Craft, 1996); 3) dominance of whole class teaching while individualized or group teaching is to be used in case of differentiated levels of students learning (Craft, 1996); student promotion on the basis of periodic, summative evaluation while students are to be provided with support on continuous basis to maximize learning.

The vision of pedagogical improvement such as child centred education and diversity education is appropriate for improving the quality of education. But there are a number of aspects that require to be answered such as – what is meant by child centred education in the context of Nepal; how can efforts to achieve child centred education be consolidated; what assessment tool(s) should be employed and for what purpose; and how classroom

pedagogy needs to take account of diverse population of children. On the other hand it is also essential to examine conditions and activities that are essential for enabling teachers to identify pedagogical needs and use better pedagogical approach in their classrooms. This study tried to explore these pertinent aspects at the retrospect, present and prospect levels and forwarded a proposal for classroom teaching learning improvement at the primary level classrooms in Nepal underlining existing policy and practices.

## 1.3 Definitions of the Key Terms

Some of the terms used in this study bear localized interpretation or limited sense. Thus these terms may lead to some misinterpretation or ambiguity. Such terms need to be defined and considered within the context of the study (Wiersma and Jurs, 2009). Following terms bear specific meaning in this study:

**Primary School/Level:** Primary School/Level in the Nepalese education system considers grades 1-5 in its structure. Therefore Primary School/Level in this study will cover these grades only.

**Retrospect:** In this study pedagogical practices in the past are covered in terms of retrospect and covers period until 1984.

**Prospect:** In this study pedagogical practices with reference to the intended pedagogical practices are suggested in terms of prospect and covers both existing practices and intended/envisioned ones covering period from 1984 to present time.

**Pedagogy: '**Pedagogy' means the 'method of teaching' interpreted in the widest sense (Winch and Gingell, 2004). The term also includes various branches of education and is defined as 'the theory and practice of teaching children which includes the philosophy, sociology, psychology and methodology involved in teaching children as well as curriculum, school organization and management' (Lohithakshan, 2004). In this study 'pedagogy' is defined in narrow sense which considers instructional strategies used in the classroom during teaching learning activities and related physical aspects of the classroom. This study considered instructional strategies and approaches used during

classroom teaching learning at present or intended ones for prospect analysis or those emphasized in the past for retrospect analysis.

**Intended pedagogical practices:** 'Intended pedagogical practices' means classroom teaching learning practices which are suggested in the educational documents (policy, plan, programme, curriculum, etc.) which are under the purview of this study.

## 1.4 Delimitations of the Study

Delimitations are the boundaries of the study (Best and Kahn, 1993). This study covers both past and existing practices which include document study, perception, observation and triangulation. Therefore this study was delimited as following:

1. In this study only those pedagogical aspects are covered which were described/emphasized in the education commission reports and documents. The pedagogical approaches described in these documents are depicted, listed and organized into related themes and narrated in the report. Generally, these aspects are instructional materials, students' activities and involvement, classroom environment, evaluation methods, training of the teacher, provision of physical facilities, etc.

2. Retrospect analysis is mainly based on the document study and perceptual information up to the time period of 1971 for which mostly education commission reports are available. Pedagogical practices suggested in these documents represent intended pedagogical practices and implementation of these practices are evaluated based on the perceptions of selected respondents which might not be representative in terms of sampling.

3. Existing classroom teaching learning practices are observed in order to triangulate the practices with research findings. Classroom observation was not indented to be representative and stand alone survey sample. Therefore only 24 schools from 12 districts are covered in this study.

## 1.5 Objectives of the Study

The general objective of this study is to examine pedagogical practices in the Primary Schools in Nepal. Specific objectives of this study are:

1. To study pedagogical practices used in the Nepalese primary schools at the retrospect level.

2. To identify and analyze the intended pedagogical approaches with their implementation at the classroom level at present and analyze gaps if any.

3. To forward a proposal for pedagogical improvement at the primary level in Nepal on the basis of retrospect analysis and existing pedagogical practices.

## 1.6 Setting Conceptual Context of the Study

In order to internalize the study and set appropriate context for the study an in-depth understanding of the related concepts would be helpful, viz. meaning and concept of pedagogy, learning, child centred education and diversity in education. Understanding the concept of pedagogy would be the starting point in this study as the central concept. Meaning and concept of the pedagogy is invariably related to how students learn so that an overview of theories of learning is deemed necessary. Child centred education and diversity in education are among the important pedagogical concepts which are receiving prominence in the school education system in Nepal at the present. Child centred education is in the vision in Nepalese education system as stated in various educational documents, curriculum and teacher training materials. Another emerging concern since EFA in 2002 is related to the diversity of the students' population in the schools. Both of these aspects are related to the quality of education and equity in education. Diversity in education is strongly related to pedagogical approaches as well. Therefore these aspects are presented in this section.

### 1.6.1 Meaning and Concept of Pedagogy

**'**Pedagogy' means the 'method of teaching' in the widest sense (Winch and Gingell, 2004) which might include the philosophy, sociology, psychology and methodology

involved in teaching children as well as the curriculum, school organization and management (Lohithakshan, 2004).

Cambridge Advanced Learner's Dictionary (2003) gives the meaning of 'pedagogy' as 'the study of methods and activities of teaching'. Thus the term generally refers to strategies of instruction, or a style of instruction. Pedagogy is also occasionally referred to as the correct use of instructive strategies (www.en.wikipedia).

The etymological meaning of the term pedagogy is derived from the Greek word 'paidagōgeō' in which 'país, genitive, paidos' means "child" and 'ágō' means "lead"; so it literally means "to lead the child". The Latin-derived word for pedagogy means 'child instruction' which is in modern use in English to refer to the whole context of instruction, learning, and the actual operation involved therein. In English the term pedagogy is used to refer to instructive theory; trainee teachers learn their subject and also the pedagogy appropriate for teaching that subject. (www.en.wikipedia).

Arends (2001) defines pedagogy as 'the study of the art and science of teaching'. Teacher as an artist need to be innovative, flexible and imaginative so that he/she is not locked into any single teaching style. A teacher needs to develop his /her unique and effective style which are constantly modified. Considering teaching strictly as an art, however is too limiting (Elliott, Kratochwill, Cook, and Travers, 2000). Nature of instruction and methods of inquiry into any discipline makes it imperative that teaching should also be considered as a science. As teachers try out new instructional methods they act as scientists employing these scientific methods in their inquiry steps: identification of the problem, formulating a logical series of steps to reach a goal, gathering data and interpreting the data. In this way teaching is both art and science and is specially so in today's changing classrooms and in the quest for effective teaching learning practices.

Though 'teaching' aspect is highlighted more in the concept of 'pedagogy', 'learning' is invariably linked to it. Alexander (2000) defined "teaching, in any setting, is the act of using method *x* to enable pupils to learn *y*" and argued that any definition of pedagogy must also take the learner into account. If a person is teaching, it must be the case that someone is learning. Dewey argued that since learning is something that pupil has to do

himself and for himself, the initiative lies with the learner. Learning of the pupils can be increased by augmenting the quantity and quality of real teaching. It is necessary that teacher understands the individual differences in children and the programme should change according to the objective of day. When one objective is fulfilled then the next step should be determined and implemented (Chaube and Chaube, 2008,). Student's learning is fundamental in teaching learning. Learning involves two kinds of acts in the sense of 'task' such as 'I am learning English' and in the sense of 'achievement' such as 'I have succeeded in learning English'. (Winch and Gingell, 2004). How this learning comes is an important consideration to generate pedagogical approaches which would facilitate successful learning. It is argued that 'what is learned cannot be separated from how it is learned.' With this emphasis Gresalfi and Cobb (2006) argued that, 'conception of content should be broadened beyond the ideas, skills and proficiencies of particular subject matter disciplines' so that it would help students to develop central level disposition. The aspects related to learning in terms of types of learning and theories of learning are briefly studied and presented in the forthcoming sections.

### 1.6.2 Learning

Concept of 'learning' needs to be discussed on two major themes 'what we learn' and 'how we learn'. Different authors use different terms to describe types of learning and there are various theories that explain how learning occurs. These two concepts are narrated in this section.

**1.6.2.1 Types of Learning:** Different authors have used different terminologies to describe the types of learning. Jarvis, Holford and Griffin (1998) viewed that different terms are used to refer to very similar phenomena. They have narrated terms used by different authors to describe learning. Terms 'single loop' and 'double loop' was used by C. Argyris and D. Schon in 1974 whereas in 'single loop learning' one learns to maintain the field of constancy by learning to design actions that satisfy existing governing variables whereas in 'double loop' learning one learns to change the field of constancy itself. J. Botkin in 1979 suggested maintenance and innovative learning meaning 'the acquisition of fixed outlets, methods and rules for dealing with known and recurring

situations' as 'maintenance learning' and 'innovative learning' as one that 'bring change, renewal, restructuring and problem reformulation'. Stephen Brookfield focused upon learning and thinking. He suggested four components of critical thinking: recognizing and challenging assumptions; challenging the importance of the context; being willing to explore alternatives; and becoming reflectively sceptical. Paulo Freire distinguished between 'banking education' and 'problem posing education' whereas Peter Jarvis distinguishes between 'reflective' and 'non-reflective learning'. Malcolm Knowles makes distinction between 'andragogy' and 'pedagogy' in 1970. Jack Mezirow in 1991 used 'formative learning' and 'transformative learning' which meant similar to the terms used by Knowles's 'pedagogy' and 'andragogy'. Mezirow drew a threefold distinction between types of learning – instrumental, communicative and emancipatory. 'Communicative learning' is the process of 'learning to understand what others mean and to make ourselves understood'; 'instrumental learning' involves 'prescriptive actions'; and 'emancipatory learning' involves 'identifying and challenging distorted meaning perspectives'. Carl Roger emphasized 'significant learning' promoting a realistic view of themselves in the students so that they can tackle learning tasks which are within, but just stretching, the frontiers of their knowledge and understanding (Cotton, 2004b).

Teaching learning is also categorized in terms of kind of approaches to teaching. In this respect Fenstremacher and Soltis (1998) terms 'the executive approach' in which the teacher as an executer uses best skills and techniques to bring about certain learning; 'the therapist approach' in which the teacher as an empathetic person helps individuals grow personally and reach a high level of self-actualization, understanding and acceptance; and 'the liberationist approach' in which the teacher, as a liberator, works towards individual's mind and develop well-rounded, knowledgeable, rational and moral human beings. Bruner related models of mind and models of pedagogy. There are four models of minds and related models of pedagogy – 1) seeing children as imitative learners, the acquisition of 'know-how', 2) seeing children as learning from didactic exposure, the acquisition of propositional knowledge, 3) seeing children as thinkers, the development of inter-subjective interchange, and 4) seeing children knowledgeable, the management of 'objective' knowledge (Bruner, 1996). Bruner further suggested three modes of representing reality which facilitate learning – enactive (through action), iconic (visual

and other sensory organization) and symbolic (words and language). Elaborating on Bruner's conception, Hodgkin (1976) proposed four modes of representing reality – interpersonal, enactive, iconic and semiotic modes.

Jarvis, Holford and Griffin (1998) synthesized that different terms used by different authors describe fundamentally the same sets of processes – learning either reinforces the status quo or changes some aspects of it. Learning types which reinforce learning of the status quo are 'single loop learning', 'maintenance learning', 'non-critical learning', 'pedagogy', 'formative learning', and 'instrumental learning'. Learning types which reinforce learning that might bring about some changes are 'double loop', 'innovative learning', 'critical learning', andragogy', 'transformative learning', and 'emancipatory learning'. Two types of changes can result due to learning process – one the learners may be changed and two learners may act to change the situation within which they function. Westwood (2008) summarized that in recent years the central debate surrounding teaching and learning is on 'constructed knowledge' versus 'instructed knowledge' which emphasize 'minimal guided instruction' and 'explicit instruction' respectively.

**1.6.2.2 Theories of Learning:** Learning is defined as a relatively more or less permanent change in behaviour which comes about as a result of practice (O'Connell, 1973) or with some deliberate training procedures (Dethier and Stellar, 1963). Learning theories basically consider experience as the source of learning (empiricism) or reasoning as the major source of learning (rationalism). Major theories are surveyed briefly in this section.

**Faculty Theory:** This theory of learning, involving mental discipline, is commonly associated with Aristotle's 'faculty psychology'. It was widely held at one time that the mind was composed of different faculties, each discrete and contributing to the mind. Thus it was supposed that there were different faculties in the mind for knowing, feeling, hungering, reasoning and doing, etc. From the Middle Ages to the early 19$^{th}$ century, the number of recognized faculties grew and included those of judgment, perception and conception. It was assumed that these were associated with certain parts of brain and

learning would take place from the exercise of these parts or mental capabilities. On this line educational subject matter existed to 'train' and develop one or more of these faculties. Since mathematics was looked upon as logical in nature, study of mathematics was for the development of the faculty of logic and history trained the memory. A one-to-one relationship was derived to a subject matter to be taught to the development of a corresponding faculty of mental capability. Aristotle proposed a simple, but practical process of learning in which three conditions determine whether learning would take place. These conditions are contiguity, contrast and similarity. In this principle, association between two events or circumstances will occur when the elements are contiguous, are contrast and are related in terms of elements. Though notion of faculty psychology has appeal, no such principle has been evident in practice. Taking a simple example, if mathematics trains the faculty of logic, then all mathematicians should be logical in their behaviour. But in practice it has been found that the behaviours which are logical or illogical may not bear direct relationship to the study of mathematics. (www.britannica.com; Edwards and Scannell, 1968).

**Behaviourist Theory:** Behaviourism has at its core the belief that behaviour is influenced by the environment in which learning occurs (Ashman and Conway, 1997). Traditionally behaviourist theory maintains that the response a learner makes is the sign that learning has occurred. Response occurs because stimulation, either external or internal, causes an individual to be active and to do something. Ivan Pavlov, Edward L. Thorndike, John B Watson, B. Frederick Skinner, Clark L. Hull are the prominent behaviourists.

Pavlov's classical conditioning is the process where a neutral (conditioned) stimulus gradually gains the ability to elicit a response due to its pairing with a natural (unconditioned) stimulus. In this learning there is an association between a stimulus and a response which had been paired together. An unconditioned stimulus produces an unconditioned response in a natural way and a neutral stimulus will not produce a response. When a neutral stimulus is paired with an unconditioned stimulus, conditioned stimulus will also be able to elicit similar outcome as unconditioned one. When the response is elicited only from the conditioned stimulus, it is regarded as a conditioned

response. This approach works with human beings and animals. (Ashman and Conway, 1997; Elliott and others, 2000). Extinction, spontaneous recovery, generalization, discrimination were some of the important findings from Pavlov's experiment. Though Pavlov made no attempt to extend his conception of learning to draw its implications on teaching, the principles are found to be relevant in teaching. One example is provided by O'Connell (1973) that ability to generalize and to discriminate, which is basic of learning and education, is the principle of classical conditioning. A child learning to read is taught to generalize such as 's-and' to 'l-and' and 'h-and', and also to discriminate between such words as 'there' and 'their'. Through this process a child learns to generalize animal, plant, etc. and also to discriminate on the basis of differences. Another example of the use of classical conditioning in teaching can be taken form Britannica Online Encyclopaedia (www.britannica.com). A person may learn to feel pleasure or pain not only when the person meets the original situation that causes them but also when he/she sees some wider context associated with it. This idea is important in school teaching and helps in a general way to explain children's positive and negative feeling towards school or a particular subject. These feelings may have arisen originally from the specific situation and context in the past and being generalized.

Thorndike also used Stimulus-Response approach in his study of learning. His belief was that all learning is based on connections or bonds that are formed between stimulus and responses. These connections occur mainly through trial and error process. This trial and error process was later termed as connectionism by Thorndike. The basic difference in the theories of Pavlov and Thorndike is that Pavlov's approach would be to arrange the environment in such a manner that a particular form of behaviour is force to appear. Thorndike's approach on the other hand would be to provide an environment in which a variety of responses would occur and the learning of one type of behaviour would depend largely upon chance and satisfaction (O'Connell, 1973). Thorndike's proposition was that satisfaction or frustration affects the organism and its actions. Connections are established by these conditions. A response or series of responses might be made to a given stimulus. The response which is followed by a reward or by a feeling of satisfaction is more likely to be repeated in a similar condition. Thus, a response to a particular stimulus will by its very success lead to the strengthening of that particular bond. He also stressed that

responses which were unpleasant or brought little or no satisfaction would not recur. This is Thorndike's 'law of effect'. Later Thorndike stressed the strengthening effect of reward is much greater that the weakening effect of punishment. Thorndike's connectionism dealt with other conditions of learning as well – 'law of exercise' and 'law of readiness'. A teacher under Thorndike's connectionism principle would be fully knowledgeable what he/she wants to teach (the stimuli) and identify the desired responses to connect to the stimuli and the timing of appropriate satisfiers (Elliott and others, 2000). In this approach a teacher is in an important position in the classroom. What the teacher does will determine what is learned and how well it is learned. In this classroom teacher would effectively use rewards (mostly) and punishment (less often) and practice with proper reinforcement to yield positive results (Edwards and Scannell, 1968).

John B Watson was the one who first used the term 'behaviourism'. He made use of Pavlov's theory to account for changes of behaviour in human beings. Watson emphasized role of emotion in learning and saw in Behaviourism the means of improving people's behaviour, predicting it and if necessary, changing it. He proposed two important laws. The law of frequency suggests that the more frequently a stimulus and a response are associated, the stronger the habit will become. The second law, law of recency, asserts that the response that occurs most recently after a stimulus is most likely to be associated with it. (Jarvis and others, 1998).

Clark Hull's theory of learning is to some extent a combination of the theories of Pavlov, Thorndike and Watson. Hull proposed that there are intervening variables in the Stimulus-Response equation that motivates the behaviour. Hull established concept of reinforcement – primary and secondary reinforcement which are applicable in the classroom situation. Reinforcement concept emphasize that teacher should use some form of reinforcement to encourage students attempt on some task in the form of attention, praise, etc. in terms of primary reinforcement. Achievement in terms of means to an end is important in terms of secondary reinforcement (O'Connell, 1973).

B. F. Skinner viewed that an organism learns mainly by producing changes in its environment in his theory of operant conditioning. In operant conditioning environment plays the key role in behaviour. In making a response, the learner sets the instrument by

which a problem is solved. For Skinner behaviour is a product of three links – 1) an operation performed on the organism from without, 2) some inner conditions and 3) a kind of behaviour (Elliott and others, 2000). In operant conditioning the conditioned response is reinforced by a succeeding stimulus. Stimulus takes control of the response and that the outcome is, thereafter, predetermined. In this conditioning the response is not elicited by the organism in the presentation of a stimulus, but first the organism makes an appropriate response. The response may be necessary for the organism to obtain something or avoid it. Such desired responses are reinforced. In Skinner's view the operant behaviour or response should be rewarded or reinforced which might be positive or negative. Positive reinforcement might be used to induce the desired responses, whereas negative reinforcement is used to prevent unwanted responses. Skinner augmented several important concepts in education such as shaping, reinforcement, generalization, punishment, etc. Reinforcement is one of the major concepts in Skinner's theory that operant conditioning is reflected in the establishment of a response through reinforcement (Edwards and Scannell, 1968). Skinner identified several types of reinforcers – primary, secondary and generalized and categorized them according to their power. In terms of schedules of reinforcement Skinner identified two kinds of reinforcements – interval and ration and schedules of reinforcement as – fixed and variable ratio.

Skinner summarized the meaning of the schedules of reinforces for education that when the student is brought under the control of intermittent reinforcement he/she will be less dependent on immediate and consistent reinforcement. If the proportion of responses reinforced (on a fixed or variable ratio schedule) is steadily reduced, a stage may reached at which behaviour is maintained indefinitely by an astonishingly small number of reinforcement (Elliott and others, 2000). Reinforcement, in the form of positive reward, was emphasized by Skinner to be used by the teachers. He maintained that punishment is of little value in encouraging learning since it suppresses the behaviour only temporarily (O'Connell, 1973). Skinner was not happy with the existing practices where 30/40 students would be in a class and the teacher would be unable to provide immediate and individualized reinforcement which was so important for learning. Skinner developed programmed instruction using teaching machines or printed programmed texts.

Behaviourist theory sheds light on how students learn. It also influenced teaching practices. Basically three aspects of behaviour were noted down to be important. First, the behaviour itself as all teaching is aimed at altering the students' performance and behaviour. Second, the consequences of the behaviour as they influence the likelihood that the behaviour will recur. Third, the antecedents because they are the factors influencing the recurrence of behaviour. Ashman and Conway (1997) stated that these can be linked as A ⇨B ⇨C (antecedents ⇨ behaviour ⇨ consequences). Structuring the antecedents and consequences directly influence classroom behaviour. Wheldall and Merrett mentioned five guiding principles in the translation of condition theories into classroom practices – 1) teaching is concerned with the observable; 2) almost all behaviour is learned; 3) learning involves change in behaviour, 4) behaviour change depends mainly on consequences; and 5) behaviours are influenced by the contexts in which they occur (Ashman and Conway, 1997).

**Field Theory:** The term 'field' accounts for the learning in terms of relation between the organism and the environment. Individual reacts to the environmental set of circumstances in terms of his/her perceptions. The field refers to and includes both the environment and the individual which are constantly changing. Thus the field is fluid and leads to different reactions at different times. To understand these reactions, one must understand the individual, the environment and psychological perceptions of the environment by the individual. (Edwards and Scannell, 1968).

The first systematic statement of learning from the field standpoint came from classical gestalt which emphasizes the form, pattern or meaningfulness of the whole. The Gestaltists emphasized the organization of perception into 'good form' or 'good pattern' based on simplicity and symmetry. To them it is futile to split the whole into separate parts. M. Wertheimer illustrated the importance of perception and the fact that the whole differs from the sum of the parts through experiments with the 'Phi phenomenon'. The Gestaltists proposed four laws of perception – law of proximity, law of closure, law of good continuation and law of similarity. Kafka utilized and explained these laws and provided a general principle know as 'pragnanz' which connotes meaningfulness, completeness, relative simplicity, and good pattern. This principle asserted that the

subject structured the perceptual field in as simple and clear manner as possible to give meaning to it.

Another important element in classical gestalt explanation of learning is insight emphasized by Kohler. Kohler through his experiments with Chimpanzees showed that the behaviour of his Chimpanzees was not mere blind trial and error like that of Thorndike's cat, but there was purposiveness and insight into the whole problem and restructuring. Insightful learning has these characteristics as stated by E. A. Lunzer – 1) suddenness of solution; 2) immediacy and smoothness of behaviour after solution; 3) ability to repeat solution without error on successive presentation of original problems; and 4) ability to transpose the solution to situations exhibiting the same relational or structural features, but in a different context (O'Connell, 1973). The ability to transfer learning is an important concept in insightful learning. Teachers need to provide opportunities for learners to see relationships by providing the elements and allowing cognitive structures to combine into a meaningful whole. As a student follows this process, he/she tends to generalize it to other situations (Edwards and Scannell, 1968).

Another theory related to field theory is Tolman's 'purposive behaviourism' through which 'sign learning' occurs. Tolman maintained that mental processes mediate between the source and the response. We cannot see mental processes, it is possible only to observe resulting behaviour. Behaviour has three properties which may be observed and described – 1) there is always present in behaviour some attempt to reach or escape a goal; 2) in the attempt to reach or escape a goal, specific patterns of commerce will be established; and 3) behaviour tends to select shorter or easier means of reaching or escaping goals (Edwards and Scannell, 1968). To Tolman behaviour is goal directed resulting in established patterns which lends itself to quickness and sureness in reaching the goal. The expediting of Tolman's theory in the classroom places emphasis on the 'sign gestalts' to be learned and incorporation into 'cognitive maps'.

Phenomenologist Combs and Snygg maintained that Stimulus-Response psychology contributed to understanding normative behaviour. They emphasized the importance of phenomenological or personal viewpoint in promoting better understanding of the individual. Behaviour is always lawful, purposeful and caused. It is essential to identify

the causes of the behaviour. The causation is the result of an individual's perception of a situation. As there are overlaps and common meaning between perceptual fields of different persons, understanding about these common meanings is possible. Control of learning is in the hands of the student, not the teacher. Personal needs and goals of the student are important. In a formal education setting teachers operate upon long range objectives while students' concern is short term motive. To reconcile the differences the teacher must be aware of the differences and include the more immediate goals in planning and instruction. When proper climate for learning is created, learning that affect future behaviour and increase self enhancement occur. Teachers should be aware of the conditions which affect learning situation – 1) freedom from threat, 2) acceptance and 3) tasks within reasonable limits (Edwards and Scannell, 1968).

Perception plays an important role in learning. Students' have a tendency to group, organize and structure. Teachers can capitalize on these by following two principles – 1) people tend to group by familiar objects and 2) objects that are similar form natural groups. These basic perceptual principles aid in meaningful learning because students can organize material through them. Three categories of cognitive instructional techniques have been suggested – situated cognition, cognitive strategy instruction and a dual approach (Ashman and Conway, 1997). Situated cognition refers to the teaching of cognitive strategies as part of the general learning process in which students acquire competence through experience in a wide range of learning situations. Skills and strategies emerge from the experience of each learner, reinforcement and exposure of the content. Cognitive strategy instruction refers to the direct teaching of a range of specific and general cognitive skills applicable to particular content areas and to a number of learning tasks. This teaching should not be fragmented. Students must be taught to apply the strategies across tasks. The dual approach has a recursive element involving a before, during and after sequence of activities. These three approaches avoid teaching of isolated facts and skills and enable the integration of thinking and understanding with content knowledge. These approaches also emphasize self regulated learning.

**Cognitivist Theory:** Cognitive theory is concerned with knowing and thinking. It studies the structures and components for processing information. The fields of study

encompassed are memory, attention, perception, language, reasoning, problem solving and creativity (Elliott and others, 2000). The cognitive foundation of learning theory was based initially on the study of human 'memory' and it takes 'mental representation' as central proposition. Mental representation or the coding of external events are retrievable in internal forms which are not direct copies of the external stimuli, but can be altered significantly and affected by prior knowledge, beliefs and experiences. What is learned and how it is learned is based upon what a person already knows. A person's ability to learn is also dependent upon the context in which the learning occurs (Ashman and Conway, 1997).

Jean Piaget is one of the most influential cognitive theorists. He developed stages of cognitive development – sensory-motor, pre-operational, intuitive, concrete-operation and formal operation encompassing birth to 15 years of age. The stages of cognitive development show that as children grow older their ability to conceptualize develops (Jarvis and others, 1998). Piaget stated that we inherit a method of intellectual functioning that enables us to respond to our environment by forming cognitive structures. There are two psychological mechanisms, i.e. 'adaptation' and 'organization' responsible for the development of cognitive structures. Adaptation consists of 'assimilation' and 'accommodation'. Assimilation is the process in which human beings take things into their minds and accommodation refers to a change in cognitive structures that produces corresponding behavioural changes. The adaptive process is the heart of Piaget's explanation of learning. We try to 'fit' new material into cognitive structures and assimilate the material in the process of 'equilibrium'. Piaget's theory is important for those working with infants as well as for the classroom. Primary level children are at intuitive and concrete operation stages. They need to be encouraged into the manipulation of materials and be provided as much hands-on experience as possible.

Lawarance Kohlberg applied Piaget's cognitive rationale to moral development. He believed that moral stages emerge from a child's active thought about moral issues and decisions. He proposed six stages of moral development which are divided into three levels. These three levels are pre-conventional, conventional and post-conventional. Six stages, two in each levels, are heteronymous morality, individualism/instrumentalism,

mutual interpersonal expectations, social system and conscience, social contact and universal ethical principles. Kohlberg's work is useful for thought provoking dialogues that probe bases for people's thinking (Elliott and others, 2000). Strategies such as asking why, complicating the circumstances and using school examples help to make classroom discussions of moral dilemmas most effective.

Lev Vygotsky argued that meaning is socially constructed and believed that children's cognitive development is advanced by interactions with an individual who is more skilled or knowledgeable. Furthermore he took the position that cognitive development is intertwined within a social environment (Ashman and Conway, 1997). An individual gains knowledge through mediation and internalization. Vygotsky identified dual paths of cognitive development as elementary processes that are basically biological and higher psychological process that are essentially socio-cultural. He was interested in the relations of the actual development process to learning capabilities (Jarvis and others, 1998). Here the actual development level is the level of the child's mental functions as a result of development cycles which have already been completed. Vygotsky maintained that what children can do with the assistance of others might even be a better indication of their mental development than that which they can do by themselves. Thus there would be distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. This distance is defined as 'zone of proximal development' (Hedegaard, 1996). Another term linked with the notion of 'zone of proximal development' is 'scaffolding'. It refers to the provision of a temporary, adjustable support that is provided in the early phases of instruction. As the students develop and extend their skills, teacher's support (the scaffolding) is gradually removed. There are two notions inherent in scaffolding – first is reciprocal relationship between the teacher and student and second there is a progressive transfer of responsibility for initiating learning from the teacher to the learner.

The importance of 'zone of proximal development' for learning theory is that we cannot draw inferences from what individuals do independently. There is a need to see their potential rather than their achievements. Potential can be spotted in teamwork and

through guidance and coaching (Jarvis and others, 1998). In scaffolded instruction the teacher need to use the components to meet the needs of the students. It includes modelling, questioning and feedback depending on the task, the needs of the particular students and their level of ability (Ashman and Conway, 1997).

Ausubel's 'meaningful learning' and 'advance organizers'; Bruner's 'conjunctive, dis-conjunctive and relational concepts', discovery learning', are among the major approaches to learning with a cognitive psychology orientation. Brooks and Brooks (1993) developed five guidelines in applying a constructivist framework in the classroom – 1) pose problems of emerging relevance to students, 2) structure learning around primary concepts, 3) seek and value students' points of view, 4) adapt curriculum to address students' current understandings, and 5) assess students' learning in the context o teaching.

**Social Learning:** Social learning theorists view that learning occurs in a social context through observing others. Another way of thinking about the social context of learning is that this lies in the social purposes for which people learn. Social purposes of learning lead to 'learning society', 'learning culture', collectivity, social groups, etc. Functionalist perspective such as Emile Durkheim looked upon education in terms of the functions it serves for integration of society as a whole. Learning in this term would be a commonality to perpetuate and reinforce homogeneity by fixing in the child from the beginning the essential similarities (Haralambos and Heald, 1980). An integrationist perspective takes the position that man is the author of his own actions. In interaction with others man interprets and defines situation, develops meaning which directs his actions and so constructs his own social world.

Albert Bandura's social learning theory builds upon the social interactionism. Bandura provides considerable sources of learning that occur through observing others in a social context. The observer may not reproduce the model's responses during acquisition so that there is no direct reinforcement. As developed by Bandura social cognitive learning means the information we process from observing other people, things and events that influences the way we act. As a result of observing others the observer may 1) acquire

new responses; 2) strengthen or weaken existing responses observing models; and 3) cause the reappearance of responses observing models that were apparently forgotten (Elliott and others, 2000). Learning occurs through observation as a consequence of the reinforcement such as reinforced or unpunished undesirable observed behaviour might be learned. Similarly punished undesirable observed behaviour might not be imitated, but reinforced positive behaviour would be learned. Therefore, consistent positive role model behaviour of the teacher in the classroom contributes to a healthy classroom atmosphere. Attention, retention, motor reproduction processes and motivational process are important processes involved in observational learning which need to be considered in modelling. Another important concept useful in the classroom is the importance of self-efficacy. Elliott and others (2000) forwarded these suggestions to translate social learning theory into meaningful classroom practice – 1) the specific behaviours to be modelled; 2) the kinds of reinforcements that are available for the correct responses; 3) the ways to communicating, demonstrating and encouraging learners to visualize desired behaviours; and 4) consideration on the lesson qualities to improve students' self-efficacy.

**Experiential Learning:** John Locke emphasized important role of experience in the development of human understating. In his book 'An Essay Concerning Human Understanding' viewed that all our knowledge is founded upon and developed from 'experience'. He further elaborated, 'our observation, employed either about external objects, or about the internal operations of our minds, perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking' (1998). He emphasized that sensation and reflection are the fountains of knowledge from which all the ideas that we have or can naturally have spring from. This puts experience as a major source of learning. Holt (1982) expressed that 'A child who has really learned something can use it, and does use it. It is connected with reality in his mind, therefore he can make other connections between it and reality when the chance comes. A piece of unreal learning has no hooks on it; it can't be attached to anything, it is of no use to the learner.

Experiential learning is the process of creating and transforming experience into knowledge, skills, attitudes, values, emotions, beliefs and senses (Jarvis and others,

1998). D. A. Kolb described a four stage model of experiential learning – experience, observations and reflections, formulation of abstract concepts and generalizations, testing implications of concepts or situations which again lead to development of new experience. The major points in experiential learning are – 1) the learner is involved in the active exploration of the experience, 2) the learner must reflect on their experience in a critical, selective way, 3) learners must be committed to the process of exploring and learning, 4) there must be scope for the learner to achieve some independence from the teacher, 5) the teacher imposes some structure on the learning process so that the learners are not left to discover by random chance, 6) exposure to experience is necessary for the learner, 7) the learner must feel safe and supported so that they are encouraged to value their own experience, and 8) experiential learning follows a linked cycle so the teacher or trainer must provide appropriate learning activities and teaching methods to support each stage (Cotton, 2004a).

**Thinking in Education:** Thinking in education and problem solving are gaining prominence in the education field with the development of cognitive and constructive paradigm in the learning theories. Thinking in education is highly emphasized as against rote memorization and storing of facts. Learning should enable learner to use and benefit from it to promote further learning, solve some problem, act on something, apply beneficially or integrate it for betterment. These aspects require thinking skills.

Thinking skills and problem solving are highly desirable and sought after qualities because these produce competence (Elliott and others, 2000). Thinking is a complex activity. While solving a problem, thought begins when a problem is recognized by the agent, proceeds through various stages until either a solution is attained or the attempt to find one is abandoned (Thomson, 1959). Thomson further elaborates thinking alternates between two poles – the Realistic and the Imaginative. The realistic involves adhering fairly strictly to logical and scientific criteria while imaginative allows inner currents to play with data originally provided by perception. In imaginative activity subject experiments, imagines, compares and so on. Between these poles of realistic and imaginative thinking there would be switching and intermediate mixing in actual thought process.

We think by using symbols. A symbol is something that represents an image or word. As people mature and use advanced thinking, there would be more use of words. There are various stages in thinking. First stage in thinking consists of wanting to solve a problem; second stage is to make hypothesis; the third is to make deductions; and the last is to test hypothesis by action or by memory (Derville, 1966). These activities involve thinking process at the higher level. The way thinking is understood in general sense and thinking used in educational terms varies as highlighted by Lipman (2003). Analyzing approaches in teaching for thinking he viewed, that the 1980s ushered in a new era in educational realm that laid emphasis on thinking in education. Here 'thinking' differs from general sense in terms of quality of thinking implied. For a distinction of the 'thinking' required in this sense it is now commonly termed as 'Critical Thinking' (CT). Lipman defines, 'critical thinking is thinking that (1) facilitates judgment because it (2) relies on criteria, (3) is self-correcting, and (4) is sensitive to context'.

CT is an approach to thinking that emphasizes stating original claims or opinions and supporting them with reasons. CT is used expressively when students make interpretations and support them verbally or in writing. It is used receptively when students critique other people's arguments. It introduces research-based, instructional methods to help students think reflectively, take ownership of their personal learning, understand the logic of arguments, listen attentively, debate confidently, and become independent, lifelong learners. CT allows us to think about our own thoughts and the reasons behind our points of view. It means that we reflect on our own ways of making decisions or solving problems. Therefore classrooms should encourage students to think for themselves and engage in critical thinking. CT methods can be used in primary to higher education, for all subjects with existing curricula. CT methods are adapted for classrooms in order to promote active inquiry, student initiated learning, problem solving, critical thinking, cooperative learning, writing and reading processes and alternative assessments (Crawford, Saul, Mathews and Makinster, 2005). They further state,

> Thinking like this means that our thoughts are consciously directed towards some goal. Our thoughts and ideas are based not on our biases or prejudices but on logic and information we gather and filter from many sources. As we think critically, we are always mindful of what and how we are thinking. When we detect an error or a different way to

> think about a problem, we explore it eagerly. Students who think critically are typically excited about their learning. They see challenges and opportunities for learning in even the most difficult intellectual tasks. These students are mindful of opportunities to use their critical thinking skills and typically engage these opportunities eagerly – whether in the classroom context or in the world of their own communities. These are the students who make teaching enjoyable and exciting. (p. 4).

The CT works on the philosophy that citizenship in open societies is more likely to be found in the 'how' of education than in the 'what' of the education. That is, the means to democratic citizenship resides less in studying the content of subjects like civics or political science than in the daily conduct of classroom instruction the opportunities that are provided for cooperative work, decision making, critical thinking, opinion formation, and debate. These practices can be employed to virtually any subject, from basic reading and writing to literature, social studies, science, and mathematics. CT is not confined to education or classroom. Now it has become a necessary disposition for a citizen in a democracy. Facione in 2010 update of 'Critical Thinking: What It Is and Why It Counts', argues that CT employed by an informed citizenry is a necessary condition for the success of democratic institutions as he sees, 'These values are so important that it is in the national interest that we should try to educate all citizens so that they can learn to think critically. Not just for their own personal good, but for the good of the rest of us too.'

Instructional objectives and questions play a vital role in teaching thinking skills. Benjamin Bloom's (1958) taxonomy of educational objectives is very helpful to promote higher level thinking in students by asking questions that require application, analysis, synthesis and judgment. Crawford and others (2005) elaborate,

> Higher order questions are those that ask how or why something happens or how one event, object, or idea might be related to other events, objects or ideas. These questions are phrased so that the person providing the answer must engage in critical thinking. That is, students might use facts and details in the process of answering the question, but they must go beyond the facts and details to construct a rationale for the response. With higher order questions, the person responding is actively asserting some position about cause or relationships. Questions phrased as higher order questions typically require the use of mental strategies associated with critical thinking. (p.5).

There are various levels of thinking. Arthur Costa identified four levels – the discrete level of thinking, strategies of thinking, creative thinking and the cognitive spirit. He also identified four level categories of teaching behaviour relevant in fostering thinking skills – questioning, structuring, responding and modelling occurring (Elliott and others, 2000). In similar fashion Mathews provides features of classrooms that invite students to learn and think critically – 1) teachers and students share responsibility for the classroom climate; 2) teachers model thinking for students and support students as they share their thinking strategies; 3) there is an atmosphere of inquiry and openness; 4) students are given support, but just the right amount of it; and 5) the arrangement of the space makes it easy and natural for the students to work together and talk to each other (Crawford and others, 2005).

### 1.6.3 Child Centred Education

Who should be at the focal in deciding education for a child – teacher/adult or child is an eminent question. Jean Jacques Rousseau's 'Emile' published in 1762 made important foundation of child centred education. He argued that children should be given more real liberty and let them do more for themselves. He viewed that in the learning, experience plays vital role and it precedes instruction. He stated that man is fashioned by education and further elaborated:

> We are born weak, we need strength; helpless, we need aid; foolish, we need reason. All that we lack at birth, all that we need when we come to man's estate, is the gift of education.
>
> This education comes to us from nature, from men, or from things. The inner growth of our organs and faculties is the education of nature, the use we learn to make of this growth is the education of men, what we gain by our experience of our surroundings is the education of things.
>
> Thus we are taught by three masters. If their teaching conflicts, the scholar is ill-educated and will never be at peace with himself; if their teaching agrees, he goes straight to his goal, he lives at peace with himself, he is well-educated.

> Now of these three factors in education nature is wholly beyond our control, things are only partly in our power; the education of men is the only one controlled by us; and even here our power is largely illusory... (p. 6).

Rousseau further cautioned us to be careful that education of man which is the one controlled by us can be ruined 'with our foolish and pedantic methods we are always preventing children from learning what they could learn much better by themselves, while we neglect what we alone can teach them.

Rousseau's point of view is not to begin with vast amount of information that we want children to acquire, but begin with what the child is capable of learning and interested. In addition he argued that children have their ways of seeing and understanding which are different from the adults. Children can exercise reason on what is within their own experience and not what is beyond it (Doddington and Hilton, 2007). Therefore instead of beginning from the outside such as from subjects and specific skills thought to be important from the adult points of views, we should begin from what is already in the child's experience and capacity to develop. In this way learning will be joyful and it will lead to the development of a person who is keen to continue to learn and ultimately grow as a responsible member of society (Sutherland, 1988).

Other child centred authorities have adopted, modified or extended the principles put forth by Rousseau. Friedrich Froebel emphasized children's play in his kindergartens so that children naturally learn to understand the world. He suggested that children can be encouraged to understand physical objects and their properties in a natural way by providing them suitable toys and games (Sutherland, 1988). He realized that much of children's play activity is culturally based. Children naturally mimic, sing, dance and listen to the stories from the world around them. He stated that these activities should be encompassed in the teaching learning activities (Doddington and Hilton, 2007).

Richard Lovell Edgeworth developed 'Practical Education' methodology course based on child centred principle. This methodology emphasizes the early childhood priorities such as playing with toys, performing simple tasks and instilling obedience and truthfulness. Edgeworth explained particular ways in which children can be encouraged to learn

through invention rather than being made to learn by rote which is usually enforced discipline or instructed in facts beyond their comprehension (Doddington and Hilton, 2007).

Johan Pestalozzi held the philosophical view of the child's innate wisdom. He argued that it must be nurtured as consciousness in the child unfolds. First comes moral education and then comes intellectual education slowly merged into it. Intellectual education must start first centred on the perception of objects and then adapted and expanded as the mind of the child expands. His pedagogical idea envisioned children as active learners and emphasized to move away from rote learning and instruction practiced at that time. Pestalozzi emphasized that the task of educators was not to instruct, but to stimulate self-activity of the children through the training of the senses (Doddington and Hilton, 2007).

The ideals developed towards child centeredness promoted self-activity, freedom of movement, space, a garden, communal play and work, etc. Traditional didactic and syllabus centred approach was recommended to be replaced by a more child centred approach. In this regard curriculum is thought in terms of activity and experience rather than of knowledge to be accumulated and facts to be stored. Plowden report on children and their primary school in Britain, published in 1967, is considered one of the most remarkable reports on the theme. 'At the heart of the educational process lies the child' is the most quoted passage from this report which embraces basic principle of the child centred education. The report emphasized that policy, material or other things were to be in the harmony with the nature of the child and acceptable to him if the desired effects is to be achieved. The proposal was on more informal and flexible teaching techniques such as project work. The school was supposed to provide the right environment for children, allow them to be themselves and develop in the way and pace appropriate to them. The important ideologies of Plowden report endorses all teaching in the primary schools to be sensitive to child's innate development; the curriculum to be open and thematic; and facilitation of learning through providing resources, questioning and supporting rather than teaching in more direct or didactic ways (Doddington and Hilton, 2007).

John Dewey explicated relationship between the school and society and pointed out the necessity for 'certain changes in the methods and materials of school work, that it might

be better adapted to present social needs.' (Dewey, 1899). He was concerned that schools were not providing children with enough opportunities to learn what they would have learned in their home surrounding. Practical activities were important for learning rather than through words and books. Dewey emphasized on interest of children as source for learning; the imagination as the medium in which the child lives (Dewey, 1915). In his one of the articles Dewey expressed his pedagogic creed on 'what education is':

- I believe that all education proceed by the participation of the individual in the social consciousness of the race. This process begins unconsciously almost at the birth.
- I believe that the only true education comes through the stimulation of the child's power by the demands of the social situations in which he finds himself
- I believe that this educational process has two sides – one psychological and one sociological; and that either can be subordinated to the other or neglected without evil results following.
- I believe that knowledge of social conditions, of the present state of civilization, is necessary in order properly to interpret the child's power.
- I believe that the psychological and social sides are organically related and that education cannot be regarded as a compromise between the two.
- I believe that each of these objections is true when urged against one side isolated from the other. In order to know what a power really is we must know what its end, use, or function is; and these we cannot know save as we conceive of the individual as active in social relationships.

In sum, I believe that the individual who is to be educated is a social individual and that society is an organic union of individuals. If we eliminate the social factor from the child we are left only with an abstraction; if we eliminate the individual factor from society, we are left only with an inert and lifeless mass. Education, therefore, must begin with a psychological insight into the child's capacities, interests, and habits. It must be controlled at every point by reference to these same considerations. (1897, pp. 19-22).

Dewey believed that 'education is the fundamental method of social progress and reform' (1897) and he maintained that for the children education was 'a process of living and not a preparation for future living'. In this spirit he stated the ways which should be considered while education is carried on:

- Active side should precede the passive in the development of child nature,

- Ideas result from action and devolve for the sake of better control of action,
- The image is the great instrument of instruction,
- The interests are the signs and symptoms of growing power,
- Only through the continual and sympathetic observation of childhood's interests can the adult enter into the child's life and see what is ready for, and upon what material it could work most readily and fruitfully,
- The emotions are the reflex of actions,
- We can only secure right habits of action and thought, with reference to the good, the true, and the beautiful, the emotions will for the most part take care of themselves. (Dewey, 1897, pp. 27-30).

Dewey advocated that children pursuing their own studies would be motivated to speculate, observe, gather information, and test out guesses or hypotheses to solve their own problems (Dewey, 1938; Pollard and Bourne, 1994). Based on this ideal, Dewey's followers developed 'Project Method' which focuses on the interest of the individual to find out more about something or to solve some problem. In this method the individual becomes aware of a problem and constructs, improves and plans solution. Then plan is carried and solution evaluated. All this is supposed to be interesting to the individual as he is all involved.

Embracing basic principles of child centred education, Hawes and Hawes (1932) defined child centred education as "an educational theory or system that emphasizes the pupil and his or her individual characteristics as central in conducting instruction instead of focusing on subject matter, external authority, and educational requirements. Curriculum is constructed according to the pupils' interests and needs." This requires a departure from teacher dominated teaching to student's learning.

Child centred education as emphasized in the aims of primary education system in Nepal, has been reiterated in major educational documents. Concept paper for 'Further Support on Basic and Primary Education in Nepal 2004 – 2009' emphasizes:

> The qualities of classroom learning experiences need to develop further, away from treating the students in classes as homogeneous units, and away from rote learning. The focus of teaching learning methodology will be on students centred active learning with

> teachers being aware of each student's level at all times through using a wide range of formal and informal techniques. (MOES, 2002, p. 13).

The above statement has been carried on to the core document of 'Education for All 2004 – 2009' (MOES, 2003a).

Child centred approach requires tailoring pedagogical processes around the need, interests, learning styles, background, etc. of the child. Wiles and Bondi (1993) viewed that a child centred approach needs to focus on the individual student to provide learning experiences in the affective, cognitive, and psychomotor areas. A child centred approach embraces principles of quality and equity in the education. Such a list is provided in the manual – 'primary curriculum development in Nepal' developed for curriculum developers by Opifer Ltd (June 2002). These are as following:

- All children are equal and should be treated with love and respect.
- Put children first, respond to their needs and build on their knowledge.
- Children are unique individuals, with different needs, interest and abilities.
- Children come to school already knowing many things.
- Children learn at different rates, i.e. they have their own pace.
- Children are curious and inquisitive.
- Children learn best through concrete, hands on experiences.
- The learning environment should stimulate children's development.
- Different children learn in different ways and varieties of strategies are necessary to cater the needs and interests of individual children.

Embracing child centred approach Kilpatrick (Kilpatrick, 1918; Pollard and Bourne, 1994) developed four-stage learning from real situation through topics,

- The children specify what they want to know, ask questions, and devise ways of finding out.
- They consult books and develop an action plan.
- They execute that work.
- They present findings to others, review, and make judgments.

It has also been advocated that if it is not children's experiences and interests that direct the curriculum content, then their experiences and interests need to be considered by the teacher. This is termed as a 'child-considered pedagogy' (Collins, Insley and Soler, 2001). Child-considered pedagogy takes account of children's experiences and interests, but decision is made by the teacher.

Assessment, another important educational process, is linked with teaching learning practices. Not only what is taught, but also how it is taught is also important to determine when, how, and what to assess. It is important to understand what the school or education hopes to achieve for its pupils. There should be harmony between what is taught and how it is tested (Spooncer, 1983). For example the goal may be to have students master the essential elements or the emphasis may be on the needs, interest, and abilities of students. Such educational goals determine the assessment strategy as curriculum, assessment and pedagogy are inter-linked (Wilmut, 2001).

Thus there might be a myriad of requirements for child centred approach such as using curriculum differentiation to respond to the needs of the students (UNESCO, 2004); organizing the primary classroom environment as a context for learning (Pointton and Kershner, 2001); making the experiences of the students central to the educational process (Dewey, 1938; Fishman and McCarthy, 1998).

### 1.6.4 Diversity in Education

EFA emphasizes that all children in today's world should have their access to school and schools should provide all students reach their learning potential. The emphasis is both on diversity and equity. There exists variety among people in schools and society which is refereed as diversity. Making impartial, fair, just, and equal conditions for all is referred to as equity (Arends, 2001). Diversity and equity are among the major themes in the educational literature. To address these concerns various concepts have emerged such as 'social justice' (Osborne, 1996), 'education for diversity' (Corson, 1998), 'empowerment' (UNESCO, 1998), 'multicultural education' (Pang, 2001), 'culturally relevant pedagogy', 'inclusive education' (Arends, 2001).

The concern for relevant and quality education for all is stressed because at present some students benefit from education whereas others are left behind. EFA Global Monitoring Report 2008 stated, "Quality is not just a matter of staying in school…. It must involve very deeply what happens in schools" (UNESCO, 2007). 'What happens in school' should not benefit only some students, it should also serve equally to others. Kinsler and Gamble (2001) stressed to "blatantly advocate for the academic success of children who have historically been underserved by the public schools." They viewed that excellence in the system's outcome cannot be attained without equity.

Fullan (1993) stressed on moral purpose of the education in order to make difference in the lives of students regardless of their background, and help them become citizens who can live and work productively. Schooling and education should offer security, approval and a way forward for individuals, but as McFadden and Munns (2002) cautioned it might also lead to 'a setting where students feel devalued and excluded'. To add insult to injury the problem is often seen as residing in those failed groups. The victims are blamed for lacking ability, motivation, appropriate home background, and so on and as Osborne (1996) views society's ongoing marginalization and normalization of these groups continues. Such situation and structures in the school and community might build up 'failure' experiences among those students (Avalos, 1986). Learning of the students including those of marginalized/disadvantaged groups, has been accorded importance these days emphasizing on considering children/students' interests, needs, expectations, motivation, background, language, culture, etc. in the classroom instruction.

Lev Vygotsky stressed matching learning with student's developmental level. He developed the concept of 'zone of proximal development' defined as 'the distance between a child's actual development level and a higher level of potential development with adult guidance and help' (Elliott and others, 2000). It is also to be noted that 'the only good instruction received in childhood is the one that precedes and guides development'. Here teachers' role is to direct action within school context appropriate to the child's present level of development, the culture and social context and try to see individuals' potential rather than their achievement (Hedagaard, 1996; Jarvis and others, 1998). Classroom pedagogy makes the difference. Repetitive teaching, rote learning

thorough repetition of textual materials, whole class teaching treating all as a homogeneous group need to be changed. 'Dialogic teaching approach' (Freire, 1972), 'direct instruction' (Grossen and Kelly, 1992), 'personalization of learning' (Leadbeater, 2004), 'culturally relevant teaching' (Gresalfi and Cobb, 2006), 'reflective teaching' (Pollard, 2006), 'critical thinking' (Crawford and others, 2005; Lipman, 2003) could be some of the ways to make learning relevant and satisfying to the children in the classrooms.

Classroom teaching learning improvements requires a myriad of aspects to be considered and should be looked at in the wider context. For example: setting classroom standards and roles expected from teacher and students -- …demanding, informing, teaching, negotiating, and arising… (Kordalewski, 2000). Best use of time for preparation time helps teachers to improve the inventiveness and appropriateness of the pedagogy (Hargreaves, 1994). Using space more intelligently for space is essentially a learning resource and a vital skill for the teachers to manage (Cohen, Manion and Morrison, 1996). Similarly classroom environment need to be managed, as the environment in the school classroom should be aesthetically pleasing; should stimulate children's interest; should set high standard in the display and presentation of the children's work; and should be created in such a way that it is practical to maintain (Pollard, 2006). Teaching should not be limited to transmission of knowledge and fact, but it should make students think and engage them into critical thinking (Lipman, 2003; Crawford and others, 2005). The considerations for institutionalization of classroom teaching learning process and development of such a framework need to pay attention to various important aspects such as stages of innovation process such as three overlapping stages suggested by Kinsler and Gamble (2001): initiation, implementation, and institutionalization or abandonment. How each stage is handled is crucial and can significantly affect the outcomes of both the succeeding stages and the innovation as a whole. Similarly, building collaborative cultures is also equally important in developing framework for effective collaboration operate in the world of idea, examining existing practices critically, seeking better alternatives and working hard together at bringing about improvements and assessing their worth (Fullan and Hargreaves, 1992).

# CHAPTER II

# REVIEW OF LITERATURE

This chapter presents a review of related literature to set the background for the study and get an insight into the related works on the theme of the study. In this process it was attempted to find out what is already known and done about the problem in the purview of this study and placing the study in its proper context and overall picture (Borg and Gall, 1979; Vockell, 1983). A single study to formulate educational policy/programme or a single experiment to investigate effectiveness of them is not appropriate. The study should not be considered in isolation, but should be positioned within the totality of research in a field to give a more complete picture (Torgerson, 2005). Therefore, review of related document, literature and studies is undertaken to set the ground for this study. Basically, review is focused on the policy and programme documents and studies on classroom teaching learning practices and is presented in subsequent sections.

## 2.1 Classroom Teaching Learning in the Policy and Programme

Educational development got its impetus in Nepal with establishment of democracy in 1950. The first educational commission in Nepal, National Education Planning Commission, submitted its report **'Education in Nepal'** in 1956 (College of Education). This report surveyed extent and nature of education in Nepal, collected perceptions of Nepalese people and analyzed need for education in Nepal in the first part of the report. In the second part of report a national plan of education for Nepal is presented covering primary level education to University education, adult education, teacher training, instructional materials, educational administration and supervision, financing, etc. The third part of report is conclusions and the last part is analysis of educational progress. This commission recognized the primary school as the foundation to eradicate illiteracy and a building block of common understanding and effort that will give strength to young democracy. The broad purposes of primary education were suggested as to wipe illiteracy; to provide a minimum fundamental education to the nation's youth; to provide a foundation for the higher education; to prove satisfying, enriching, properly directed development of children; and to provide for the political, economic and cultural

regeneration of Nepal. Similarly, this commission suggested objectives of the primary education as to develop competencies in the basic skills of communication, language and mathematics; to develop civic competencies; to develop economic competency; to develop aesthetic competencies; to develop personal competencies; to discover latent talents and abilities to enable the individual to make maximum contribution to the society; to develop broad understanding of life, the world, its environment, the universe, etc.; and to develop a desire for leisure time, and knowledge and practice in the effective use of it.

Nepal National Education Planning Commission, 1956 outlined curricular, instructional and assessment plan for the primary level. The commission conceived education to be guide experience in living. Children should not be forced to step into 'another world' as they cross the threshold of the school. The report argued that children learn more effectively, more rapidly, and more permanently when they take an active part in the learning process. Passive learning rarely leads to dynamic, active, self-directed behaviour, or develop responsibility and leadership. Therefore, the primary school should follow the activity or project method in which pupils are taught to identify their problem, plan and direct their solutions, and evaluate the results for themselves. When asked, a pupil should know what s/he is doing, why s/he is doing particular activity and s/he should be interested in the activity. Cooperative planning, problem based activities; life related projects make the classroom a workshop where students learn by doing. Teachers should act as a facilitator and not lecture or dictate. Learning should be individual, not en masse.

The second national education in Nepal, **All Round National Education Committee**, 1961 (MOE), in its 123 pages report described tradition of education in Nepal and discussed school level education, Sanskrit education, teacher training, Social education, higher education, etc. The committee emphasized that a good education should inculcate good thinking, perceptions, reflection, views, and there list of fifteen good habits that education should emphasize. Teaching method should be based on the findings related to body, heart, brain and soul. Teaching methods at the primary education should focus on the development of students' concentration, analytical skills, listening, memorization, etc. Most important of them is the concentration. Generally each child use to have interest in a

subject area and teacher's responsibility is to identify it and provide support to the student on the development in that area. Primary education should be provided through oral, activity, drawing and examples. Undue textbook load should be discouraged. Accordingly, the committee suggested grade-wise curriculum with content outline in general.

In 1971 **The National Education System Plan** was commissioned to draw a five year plan for 1971-1976 which emphasized and worked in the designing of national level curriculum and textbook development (MOE, 1971). The Commission focused more on institutionalization of the education system, nationalization of schools and uniformalization of curriculum and textbooks, but there are no specific recommendations for the teaching methods. Though the teaching methods in use then were termed to be 'extremely old-fashioned', there has been only cursory suggestions on the appropriate teaching methods which were suggested to be developed through education improvement and research projects, and experiment and extend new teaching methods.

**Report of National Education Commission, 1992**, reviewed and discussed entire education system covering pre-primary to University level education, Sanskrit, Special, Non-formal, Technical and Vocational Education (NEC, 1992). The commission pointed out that education system in vogue has not been able to meet the national, social and individual requirements. It has been pointed out that the curriculum of primary education has not yet been designed to bestow skills of practical use to a sufficient degree. It was neither interesting to the children, nor was suited to the rural environment. At the first place teacher refrained from taking class and even when they took class, its quality and content was theoretical and bookish. Students were rather made to learn by rote and what students learn was devoid of meaning. There was absence of realistic activities and theory was never applied in practice. The commission recommended fundamental objective of primary education as the development of the inborn abilities of the children under a pupil-centred system; to pay attention to providing practical knowledge about agriculture and environment; to orient towards hygiene and sanitation through the medium of practical activities, etc. These examples show that the commission emphasized child centred education at the primary level.

**The Report of the High Level National Education Commission (1999)** reviewed overall education system and provided its recommendation for the educational development in Nepal. This report identified main problems and issues related to fourteen different themes. Among these problems and issues were poor quality of primary education, faulty evaluation system, lack of relevancy of education to the students, low quality of teachers' standard and qualification, and incompatible medium of instruction. This report suggested streamlining objectives of primary education, adopting liberal promotion and continuous assessment system, upgrading qualifications of teachers, improving curriculum and textbooks, teaching in native languages, and use reformative teaching. As the teaching practices were not effective, it was suggested to use reformative teaching practices to identify the weakness in teaching methods, improve teaching accordingly and attract the students to classes.

More consorted effort was put on to improve quality of primary education with **Primary Education Project** which came into effect in September 1984 (Research Centre for Educational Innovation and Development, i.e. CERID, 1989a). This project initiated formal planning for project/programme implementation at the national level. First the project was implemented in the six districts of the country and then gradually covered nation-wide. This project was designed to a) achieve a low-cost qualitative improvement in primary education, and b) strengthen the administrative and technical capacity of the sector. This project aimed at improving the competence of teachers to raise the quality of instruction in the primary schools through training of teachers and supervision of classroom teaching. Teachers of cluster schools were provided 12 days training focussing on the subject matter and then 10 days training focussing on the development and use of educational materials at two phases. Development and use of instructional materials, lesson planning and subject teaching methods were covered in the training programme.

Primary Education Project was followed by The Basic and Primary Education Project 1991-2001. In 1996 the project was updated based on the recommendations made by the Mid-Term Review Mission and was designed for the period of 1997-2002 which is termed as BPEP-II. **Basic and Primary Education Project Master Plan 1991-2001** (Ministry of Education and Culture, i.e. MOEC, 1991) emphasized on dissemination of

curricular intents and expected outcomes and synchronisation of curriculum and textbook development to improve quality of education. In case of examination reforms it was planned to use continuous assessment of pupil progress in improving instructional standards, promoting liberal promotion in early grades, implementation of a national primary education assessment programme and use of its results. Regarding teacher training, the plan emphasized to match training programmes with the training needs of the primary school system (e.g. grade teaching and multi-grade teaching); focus initial training of in-service teachers on developing essential pedagogical competencies; adopt modular training approach to provide optimal training to in-service teachers; etc.

**The Basic and Primary Education Master Plan 1997-2002** (MOE, 1997) developed a comprehensive plan covering various aspects related to primary education into more than 700 pages. In relation to the pedagogical improvement, the plan emphasized on teacher training, improved and continuous student assessment, enhanced physical and learning environment, and physical rehabilitation of schools. Similarly, it was emphasized that Curriculum Dissemination Programme would be conducted with teacher's guide as the main tools of dissemination training. The expected outcomes were – 1) teachers be fully oriented on the use of teacher's guides and develop an inclination to use them, and 2) teachers be able to use appropriate method of teaching to achieve the objectives of the lessons. As teachers would be normally expected to follow the teaching techniques used during training period while they teach in their classes/schools, teachers should be required to practice what they teach and preach about the effective methods of teaching at the time of training. The plan stated that almost fifty percent of the training on pedagogy should be conducted through apprentice method and emphasis was on use of methods and techniques for the learner centred approach.

**Programme Implementation Plan for BPEP-II, 1999-2004** (MOE, 1999) viewed curriculum renewal and assessment, and teacher training and professional support as major components for improving learning achievement of the students. This plan highlighted several policy issues and strategies to create a better learning environment emphasizing on increasing the daily attendance of teachers and students; enrolling only appropriate age children at grade I; creating a healthy, safe and pleasant school

environment; timely distribution of curricular materials; increasing the grade promotion and school retention rates; reducing overall class size; improving learning especially in grades 1 to 3; and providing teachers with adequate, appropriate training and classroom support. Emphasis was put on demand driven annual recurrent in-service training, whole school approaches to school quality development, training content that focuses on the learning needs and styles of young children and professional support through school cluster based activities and mentoring in classrooms from Resource Persons and other teachers. Five strategies suggested for curriculum and assessment were – a) establishing minimal learning levels for each grade in order to link these to pedagogical techniques and materials that will help teachers integrate continuous assessment of student progress as part of their daily classroom practice; b) developing methods and materials to support grade teaching especially in Grade 1 to 3 wherever feasible; c) developing methods and materials appropriate for multi-grade organization in small schools; d) developing additional materials to supplement and support curriculum implementation and textbook use; and e) providing textbook and teacher's guides, supplementary reading materials and workbooks.

Further support on basic and primary education in Nepal was started in 2002 and plan was forwarded for 'Education for All' (EFA). **Education for All National Plan of Action Nepal 2001-2015** (MOES, 2003b) outlined its framework on the basis of six major goals set by Dakar Forum for the Year 2015. Quality education, meeting learning needs, making curriculum more practical and relevant to day to day life, life skills, improving school environment, teaching in mother tongue, formative assessment, etc. were emphasized. **Education for All 2004-2009 Core Document** (MOES, 2003a) set three main objectives – a) ensuring access and equity in primary education, b) enhancing quality and relevance of primary education, and c) improving efficiency and institutional capacity of schools and institutions at all levels providing technical backstopping to schools. The Document envisioned 'A Child', 'A School', 'A Classroom', 'A Teacher' and 'A Community/District' by 2015. All children learn to become democratic citizens through relevant elements of life skills fulfilling the individual as well as the nation's requirements. Child is inquisitive to learn and has command over a level of knowledge comparable to children of the same age group in the global context. All Nepalese schools

are efficient and deliver quality education in a safe, conducive and challenging environment for child learning and development. As for the a classroom by 2015, it is envisioned that the classroom would be a stimulating learning environment, designed to meet the learning needs of all students and ensure that each student develops to their full potential.

**National Curriculum Framework for School Education (Pre-primary to 12) in Nepal** was developed in 2005 for the first time (MOES). The framework discussed need for a national curriculum framework; developed overall context and curricular concerns; forwarded visions, goals and guiding principles for curriculum; suggested school education objectives, curriculum structure and student assessment policy; and outlined strategy for implementing the national curriculum framework. It has been emphasized that teaching approaches need to place greater emphasis on the tools for seeking and processing knowledge rather than the actual knowledge itself. This requires active involvement of students in the learning process. While teaching, the students should be regarded as a constructor of knowledge. Curriculum should be implemented in a child friendly manner. The framework emphasized on preparing teachers for effective curriculum development and implementation with focus on these elements – a) inclusive approaches in teaching and learning process, b) child centred and life skills based approach in teaching, c) knowledge of and skills in language transition for primary level students in bilingual and multilingual classroom situation, d) contextualizing the learning experiences based on curriculum, e) basic knowledge and skills in Information Communication Technology, f) Knowledge and skills for curriculum accommodation, adaptation and need based curriculum development and implementation, g) preparing instructional materials to address the differing needs of children, h) developing assessment tools, analysing test results and reporting to parents, and i) understanding and conducting action research.

**School Sector Reform Plan 2009-2015** (MOE, 2009), which is currently being implemented in Nepal, covered Early Childhood Education and Development to higher secondary (grades 11 and 12) in its purview. This plan focuses on integration and consolidation of basic education, i.e. grades 1-8, with the goal to ensure equitable access

to quality education through a right based approach and promotion of a child friendly environment in schools. It is emphasized employing flexible learning approaches to respond to diverse needs and to address learners' individual pace to learning as well as implementing continuous assessment and remedial support systems. In order to ensure better learning environment, availability of qualified and trained teachers, curriculum and textbook materials, teacher's time on task, extra-curricular activities and so forth. Meeting minimum enabling condition and setting norms and standards has also been emphasized. National norms and standards for input, process and learning outcomes have been defined which includes an environment for equitable participation, safe, secure and child friendly classroom, adequate instructional processes, and adequate number of qualified teachers.

Department of Education published **Framework of Child Friendly School for Quality Education** in **2010** which explained what a 'child friendly school' is; why it is required; aspects of child friendly schools, etc. This framework listed a Child Friendly School would provide children – physically, mentally and emotionally safe and healthy environment; learning environment and curriculum according to their interest, ability and level; non-discriminating environment; care for their health and safety; fearless and punishment free environment. The emphasis is on how to enrich and modify existing educational condition rather than initiating new programme for a child friendly school. It is viewed that school improvement plan development, working modality of school management committee, management of financial and physical resources, mobilization of community, teaching learning process, extra-curricular activities, etc. should consider children as a focal point in order to bring about immediate and visible changes. For this the framework has quantified minimum and expected indicators of different aspects of child friendly school.

## 2.2 Studies on the Classroom Teaching Leaning Practices

Some innovative and experimental studies have been tried out in Nepal to improve classroom teaching learning. Similarly short term teacher training have been prepared related to classroom teaching learning practices. In this section selected studies, training manuals and Ph. D. dissertations are reviewed and narrated. These documents are also referred in various part of this study where relevant.

Teacher training courses include pedagogical content which are usually in line of University courses. There have been a number of attempts to develop teacher training manual in specific pedagogical areas as well. Curriculum Development Centre developed **A Manual for Curriculum Developers** in 2002 in line with child centred approach (Opifer Ltd., 2002). The manual has been intended as a practical working document to be used by the writers when revising the primary curriculum in Nepal. The manual takes the curriculum writers through the stages of the curriculum development process, indentifying decision points along the way, usually with suggestions for possible resolutions to the issues on which decisions need to be taken. Throughout the manual, the emphasis is on the question – 'How can curriculum writers write the curriculum so as to enable the kind of child centred teacher, learner and classroom envisaged?' This Manual disused policy issues; narrated curriculum objects; described curriculum delivery in the classroom; forwarded curriculum format; and presented planning for curriculum implementation.

Department of Education with the support from Save the Children developed **Child Friendly Schooling Teachers' Training Manual**. This five days training manual covers child rights; ways of making school, classroom and teaching learning child friendly; and establishing cooperation between school and community. Training content mainly covered rights of children; child friendly school; child centred teaching learning; and school community cooperation. The training methodologies used are activity based, group work, discussion, story, problem solving, etc.

National Centre for Educational Development (NCED) developed **Punishment Free Teaching Learning Teacher Training Programme: Training of Trainer Manual** in 2006. This five days training manual covers child development, stress and stress management, affect of stress in learning, misbehaviour in children, options to punishment, behaviour change, counselling, etc. Discussion questions, pair work, group discussion, brainstorming, case study, mini lecture, etc. are the suggested training delivery methods.

**Life Skill Based Health Education: Trainer's Manual for Primary Level** was developed by NCED in 2007 (NCED, 2007a). This manual covers introduction to life

skills, types, effective communication, active listening, analytical skills, conflict and conflict management, cooperation and group work, empathy, decision making, positive and analytical thinking skills, management skills of emotions and stress, HIV, etc. Pair work, group discussion, mini lecture, questioning, role play, ice breaking activity, brainstorming, discussion, charts, etc. are the methods used for the delivery of the training.

NCED has designed **Teacher Professional Development Training of Trainer Manual** in 2010. This 12 days training manual provides introduction to various aspects of teacher's professional development and also introduces various training and sample modules for teacher's teaching improvement such as quality education materials, life skills, human value, critical thinking, sex education, peace and civic education, and child friendly education. Recently NCED prepared **Teacher Development Policy Guideline** in 2011. The main purpose of the guideline is to serve as practical instrument for developing quality teachers by making arrangements of several quality measures. This policy guideline expected that teachers would demonstrate productive teaching performance whereby student learning will be enhanced.

There have been a number of experimental and innovative studies/projects to improve classroom teaching learning practices at the primary school level in Nepal. These are described in chapter VI of this study. Here only two studies are reviewed as examples. CERID undertook a three years project **Instructional Improvement in Primary Schools** in 1983-1985. The objectives of this project were – a) to prepare teachers for implementing student-centred and activity-oriented techniques of teaching in primary classroom; b) to orient parents with techniques of encouraging and facilitating students' learning efforts at home; c) to design and develop a set of learning materials for primary school students; d) to train teachers in the development and use of classroom instructional materials; and e) to document the process of instructional transformation in the Nepalese context and its impact on students' achievement levels. With respect to teacher preparation manifold activities were designed to help teachers in studying classroom practices and identifying topics and areas for improvement; in preparing materials which would be more appropriate and motivating to students and the teachers alike; and in

promoting increased participation of students to bring about an increased achievement level. The major inputs of the project were designed to facilitate a gradual transition from the traditional teacher centred teaching method to an activity based instructional system. Evaluation of this project (CERID, 1989b) found that there was some improvement in the internal functioning of the instructional system of the project schools and achievement level of the grade I students improved over the project period. This project was continued in the second phase as well.

Rato Bangala school piloted an outreach partnership programme in 2004 which was called **Rato Bangala Partnership in Outreach Programme**. The five year progress report (Rato Bangala Partnership in Outreach Programme, 2008) outlined project inputs as training, teaching materials, scholarship, mini grants, supervision and monitoring, and educational exhibitions. Teacher training focused on development of skills on child centred methods in the classrooms in order to enable students learn practically. During the training participants teachers also developed required teaching learning materials and took these materials with them to use in their classrooms at the school. Teachers were also provided with refresher training along with other supports. The teaching learning environment in the schools were found to have improved such as seating arrangement, use of teaching learning materials, drafting and implementation of classroom rules and job charts, and use of more practical and child friendly approaches in the classroom.

Several Ph**.** D. candidates also studies on various aspects of classroom teaching learning in the Nepalese school context. Selected Ph. D. dissertations are review here. **'Narrative Approach to Science Teaching' study was undertaken by Bajarcharya (1995)** in his Ph. D. dissertation. The objective of the study was to use narrative approach to increase the educational interaction between Science and culture. The study focused on the content of study in the actual school and social settings. The study found many social beliefs and other beliefs being constructed to the classroom discussions. By bringing scientific inquiry and interpretations and extrapolation the cultural beliefs, vigorous interactions could be generated in the classroom setting. Use of narrative approach in the classroom teaching learning resulted in much more interaction with the students than the traditional instructional approach leading to talk about the contents of the texts rather than to

memorize the texts. On the other hand the study revealed that effortless learning which evolved through the approach made the students feel that they were not taught Science rather they were concerned and anxious if the course would be complete on time.

**Joshi** in 1997 studied **'Determinants of Mathematics Achievement Using Structural Equation Modelling'**. Among the various factors determining achievement of the students in Mathematics, the study also pointed out one of the major factors to be the unavailability of qualified and experienced teachers. This was pointed out to be the major problem, particularly in the rural areas. Although there would be qualified and experienced teachers in the urban areas, lack of adequate instructional materials would hinder effective classroom teaching learning. In terms of the variables related to learning environment among peers, the study found low level of peer interaction when learning and studying in and out of school which could be supportive in the achievement in Mathematics.

**Sharma** in 2006 studied on **'Curriculum Standards: implications of the desired and the existing standards for the reform of mathematics education in Nepal'** for his Ph. D. He found that existing curriculum demanded a shift in the pedagogy with an inclusion of new content in the curriculum of the secondary level. In the curriculum the emphasis was on more interactive and student involved activities rather than teacher dominated presentation. The emphasis was also on providing additional works/exercises to be provided by the teacher instead of solely depending on the exercises provided in the textbook. The activities suggested were discussion and interaction with teacher and among the students themselves in solving a problem. The emphasis was to use and relate mathematics in the classroom teaching with day to day life. Sharma found six teaching methods suggested in the curriculum, viz. demonstration, question answer, investigation, practical, inductive and problem solving. However he found that the tendency of the teachers was to use traditional practices in classroom teaching and take no risk with innovation. Backwash effect of existing examination system was found that classroom teaching. Classroom teaching was largely on rote memorization and drill because examination focused on items that require rote memorization and reproduction.

Another Ph. D. dissertation in 2006 in the FOE, Tribhuvan University was undertaken by **Pant** entitled **'A Study of Learning Difficulties in Mathematics Among Grade V Students in Kathmandu Valley'**. This study attempted to assess classroom dynamics in terms of beginning of the class, command of subject matter effective planning and teaching techniques focusing student activity, materials, evaluation, etc. The study found positive correlation of the factors planning, use of materials, display, use of question answer method, monitor's support with the learning achievement in Mathematics.

**'Language Coping Strategies of Primary School Children of Nepal'**, Ph. D. dissertation work of **Joshi** (2009) focused on the paradoxical nature of home and school language practices and how children manage these differences. One of the components of this study is relation of language use into pedagogical practices for meaningful schooling. This study found mostly 'teacher oriented classrooms' where there is lack of communicative language in which students are familiar and would have been more comfortable with. Forcing 'English-medium' communication was actually a barrier to correct language and content learning. The language mess was compounded due to incorrect and messy language of the teacher themselves on the one hand and on the other hand use of language and vocabulary by the teachers did not match the level of students' language grasp. In relation to the pedagogical and communicational language medium this study came up with one of the major conclusion that classroom delivery language should be in mother tongue and/or a common national language spoken in society at least for primary level children. This study further pondered upon the learning models that could be applied to meet the language related priorities of private school students. Specialized discursive learning model has been suggested in this study for the skill driven schooling in which students' group learning with teachers' support is combined to facilitate specific knowledge on subject matter or language (skill-driven learning model); students are exposed to the field interactions under various events to better delivery medium and develop the extrovert behaviour in them (attitude-driven learning model); students' acquisition of the real life knowledge and desirable language competencies is facilitated (competency-driven learning); and cross fertilized of these three models (blended model). Besides 'specialized discursive learning model', this study suggested other relevant pedagogical approaches such as co-existence model to facilitate language

harmony in the context of learning; sheltered model in the context of experimental learning; and content and language integrated learning model in the context of effective language/knowledge acquisition.

## 2.3 Conclusion

Review of the policy and programme documents in relation to the classroom teaching learning practices at the Nepalese primary school explicitly shows that more involvement of the students in teaching learning, child centred/friendly approaches, activity based, and such improved pedagogical approaches have been emphasized. Some of experimental, project based studies exhibit improvement in the classroom teaching learning practices as well. But improvement in classroom teaching learning practices in general has not been observed in the reviewed studies. The general scenario of the classroom teaching learning practices in the Nepalese schools is analyzed and presented in the coming chapters.

# CHAPTER III

# METHODOLOGY

This study has used both qualitative and quantitative methods. The research design used is the descriptive design. Description is based on classroom observation, interview, discussion, document review/study, sharing sessions with the educationist, ministry personnel and related stakeholders. The study methodology is presented in this chapter covering type of research and study strategy.

## 3.1 Type of Research

This is a descriptive research study and uses retrospect and prospect analysis as elaborated in the forthcoming paragraphs.

### 3.1.1 Descriptive Research Method

A descriptive study describes and interprets what is (Best and Kahn, 2003); it determines and reports the way things are (Gay, 1992); and attempts to describe and explain conditions of the present (Picciano, 2007). Descriptive research involves collecting data in order to test hypothesis or to answer questions concerning the current status of the subject of the study (Gay, 1992). It describes the conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident, or trends that are developing.

According to Kothari (2004) 'descriptive research' concerns with describing the characteristics of a particular individual or of a group and includes survey and fact finding enquires of different kinds. He stressed that the major purpose of descriptive research is description of the state of affairs as it exists at present. It is mainly concerned with the present, but often past events are also considered and influences and implications for the future are also considered (Best and Kahn, 2003). Therefore this study has included fact finding and description of events in terms of past, present and future on the pedagogical development at the primary level in Nepal.

Gay (1992) pointed out that there are different types of descriptive studies and classifying them is not easy. He proposed categorization of descriptive studies in terms of how data is collected – through self-report or observation. Survey research, developmental studies, follow-up studies, socio-metric studies are self-report research and non-participant observation (naturalistic observation, simulation observation, case study, and content analysis), participant observation and ethnography are observational research. In a self-report study information is solicited from individual using instrument such as questionnaire, interview or standardized attitude scales. In an observational study individuals are not asked for information, but required information/data is collected through means of observation. Anderson and Arsenault (1998) categorized descriptive methods as content analysis, tracer studies and sociometry. Content analysis is applied to the analysis of data in documents and refers to the systematic description of the contents of documents. Content of the relevant documents has been analyzed particularly for retrospect part of this study. Thus this descriptive study has carried out the following activities:

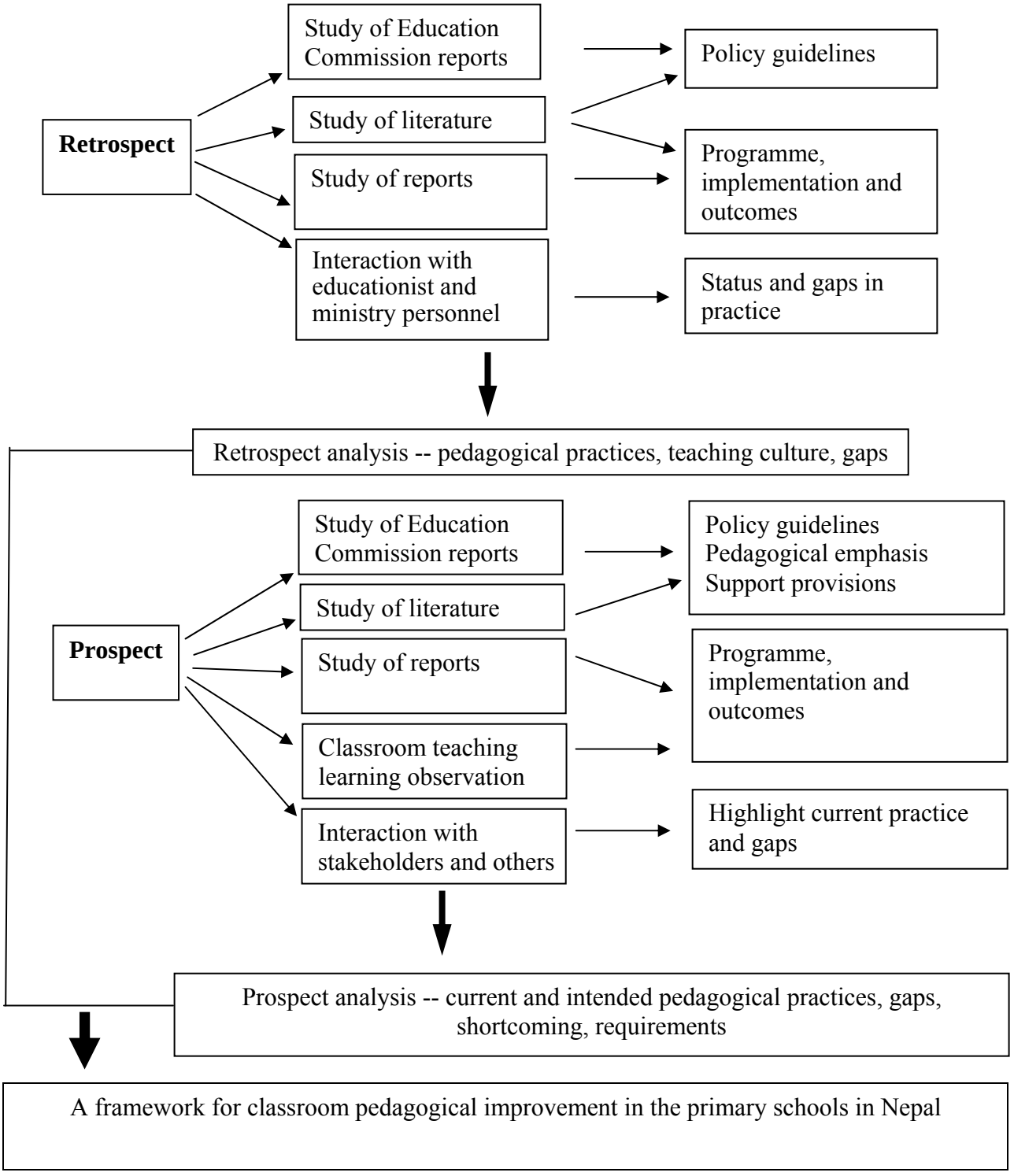
1. Depict and describe government policy regarding pedagogical emphasis (such as child centred education and diversity education) in the primary schools,
2. Study and describe existing pedagogical policies and plans for the primary schools,
3. Study classroom pedagogical practices in the primary schools and analyze,
4. Study the literature related to theory and practice on classroom pedagogical approaches and describe if any gap exist in the pedagogical emphasis and classroom practice by comparing with the pedagogical principles.

### 3.1.2 Analysis in Terms of Retrospect and Prospect

Retrospect and prospect analysis has been undertaken in this study. The description is based on what has been in practice (retrospect), examine and describe classroom practices existing at present, and draw out visualized as well as feasible classroom practices to be adopted for improvement in the classroom pedagogy in the primary schools in Nepal (prospect). For retrospect and prospect analysis, a framework has been developed that depicts strategy for undertaking the study and sources of the study for retrospect and

prospect study linking these to propose a framework for the pedagogical improvement in the primary level schools in Nepal. This framework is presented in figure 3.1 below:

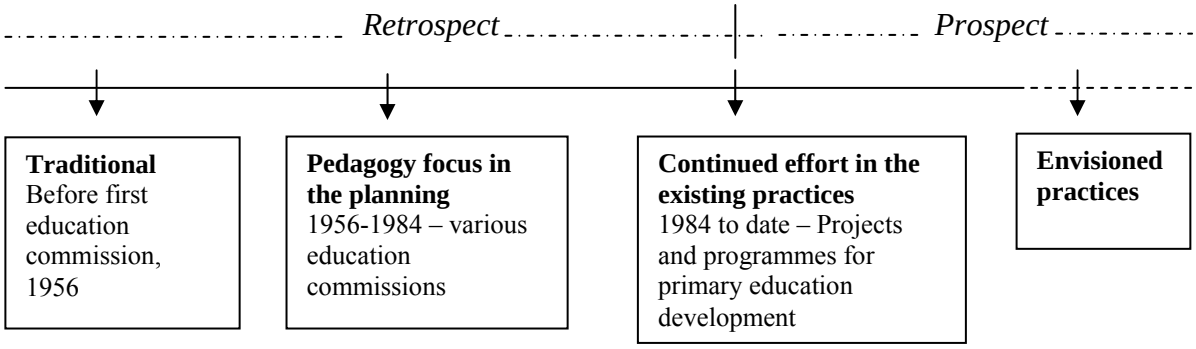
**Figure 3.1: Framework for retrospect and prospect analysis**



Retrospect analysis is basically undertaken through analysis of planning documents and their evaluation reports if available. The analysis focuses on what impact the programme had made, reasons for the outcome and lessons that could be drawn. This involves analysis of the reform process and finding out reasons for the success or failure. Prospect analysis examines in depth the existing policy and programme and how these have been put into practice. Along with this information, theoretical perspective is undertaken to formulate prospect for the future development.

Retrospect (the past) and prospect (the future) is a time continuum, but a demarcation point needs to be rationally selected to demarcate study coverage for the past, present and future. As this study intends to cover what has been happening in the past, what the present situation reveals, and on that basis propose a feasible framework for the pedagogical improvement a demarcation time point is selected at 1984 as shown in the figure 3.2 below:

**Figure 3.2: Timeline for the retrospect and prospect study with demarcation in 1984**




The rationale for choosing 1984 as the demarcation point for retrospect and prospect is that present pedagogical emphasis in the government planning document and curriculum has been stated as continued improvement and reform starting from initiation of Primary Education Project (PEP) initiated in September 1984. PEP cumulated to Basic and Primary Education Project (BPEP-I) 1992-1996, BPEP-II 1997-2002, Education for All (EFA) 2004-2009 and now School Sector Reform (SSR) is developed to commence from 2009. Unmet plans of PEP, BPEP-I and II, EFA and now plan of SSR, curriculum, projects and programs for quality improvement provides elements to consider in the framework for the prospect of the pedagogical improvement.

## 3.2 Study Strategy

In this descriptive study interaction, observation and desk study approaches have been used. Interview schedule, interaction guidelines, observation guidelines have been developed to collect relevant data/information. Multistep strategy has been used to collect data/information from the field. Though purposive sampling has been used in general, the attempt has been to make sampling representative as far as possible. These aspects are described in the forthcoming paragraphs.

### 3.2.1 Approaches

This study has used multiple approaches to collect required data/information which are described below:

1. **Desk Study:** Documents and literature have been studied/reviewed to describe and compare the intended pedagogical intervention with practice using deductive method both for retrospect and existing practices.

2. **Interaction (Interview, Discussion):** Educationist and ministry personnel involved in the development of various educational documents have been interacted to depict pedagogical emphasis and practices. People who had classroom teaching learning experience at the time interval of the documents/reports studied for the retrospect have been interviewed to get an overview of the classroom teaching learning practices at those time intervals.

3. **Observation:** Classroom teaching learning has been observed in naturalistic setting and observation has been focused to see classroom life as it really is (Wragg, 1999). Naturalistic observation, i.e. recording and study behaviour as it normally occurs (Gay, 1992) of the classroom teaching learning has been undertaken in the sampled schools. Category system of recording of the observation has been employed in this study in which recording is done whether or not something took place (Wragg, 1999). Classroom teaching learning observation has been done to compare existing classroom practices with intended pedagogical emphasis. The gap in the intention and implementation and reasons for the gap has been analyzed.

4. **Interaction (Interview):** In-depth interview using semi-structured interviews with teachers, students, parents, and other related stakeholders following up the classroom teaching learning observation has been done.

5. **Interaction (FGD, GD):** Focus Group Discussion (FGD)/ Group Discussion (GD) have been done with teachers, students, community members. In-depth interview with selected persons participating in the FGD/GD has been done as needed.

6. **Triangulation:** Triangulation requires use of two or more methods of data/information collection to yield sufficient and unambiguous information on the aspect under the study (Cohen, Manion and Morrison, 2001). Data/information from the classroom observation, interaction, and document study have been triangulated with the findings of studies covering classroom teaching learning practices in the primary level in Nepal.

### 3.2.2 Tools

Several study tools have been developed and used in this study for interaction and observation (please see appendix 1 for the tools). These steps were undertaken in the development of study tools:

1. Based on data/information requirement study tools were developed.
2. Drafts of tools were shared with the experts for their comments and suggestions and revised accordingly.
3. Revised tools were pre-tested for language clarity, information availability, adequacy of coverage, etc.
4. Then final tools were developed and used in the field.

In this process following study tools were developed in this study:

1. **Interview Schedule:** Interview schedules/guidelines have been developed for interaction with educationist, ministry personnel, students, teachers, head teachers and parents. Interview schedules used semi-structured format and prompts and probes have been used as needed to direct the interaction to the

theme of the interview and ensure that key points/topics are covered. Semi-structured interview included queries on classroom teaching learning practices, problems and issues, endeavours for improvement, and implementation of suggestions pertaining to different points of timeline. Comments on existing practices and suggestions for improvement were also discussed during interview.

2. **Focus Group Discussion, Group Discussion Guideline:** Discussion guidelines have been developed to interact with students, teachers and community members. These interaction sessions would start with general discussion point on the concept on quality education and requirement and enter into specific discussion points on teaching learning improvement at the classroom level.

3. **Classroom Observation Form/Guideline:** Classroom observation form has been developed as guidelines for what to focus on during classroom teaching learning observation. This form mainly covered observation of a lesson with respect to physical aspects, curriculum transaction, medium of instruction, instructional materials, classroom pedagogy and assessment practices.

4. **Note Taking:** Extensive note taking has been done along with using the above tools. Note taking, categorization and theme generation have been done on the basis of study/review of the documents, literature and reports as well.

### 3.2.3 Study Steps

Data/information collection has been done in multistep/stage manner. These steps have been as followings:

1. First the classroom teaching learning observation was done in the sample schools.

2. Second the classroom teaching learning observation was followed by in-depth interview using semi-structured interviews. Interview has been focused on the

practices observed and practices intended in the plan, programme, curriculum, teacher training, etc.

3. FGD was conducted where it was possible to organize small structured groups with selected participants to discuss on selected classroom pedagogy issue. Where the nature of the participants varied and different themes pertaining to the study were to be covered GD was conducted. Researcher of this study led the discussion as the moderator and the discussions were focused around specific issues such as a collective work during the session (Litosseliti, 2005).

4. For analysis all the discourses have been noted down comprehensively and analyzed using analytic–inductive method (Henn, Weinstein and Foard, 2006; Locke, 2005). Analysis has been undertaken in several stages – compilation, categorization, theme generation and refinement of the themes and drawing of the meaning of the pedagogical practices.

5. Findings from the study/review and gaps identified have been shared and comments sought from the educationist and ministry personnel for the validation of the study findings and tentative suggestions.

6. Proposed prospective pedagogical practice framework has been shared, comments collected from related persons/institutions and revised accordingly.

### 3.2.4 Population and Sampling Technique

This study mainly used interaction and classroom teaching learning observation for the data/information from the field study. This study assumed all the 75 districts as the population of study. Study districts, which are the first level of sampling in this study, were sampled on the basis of stratified random sampling. Stratified random sample is defined as a random sample in which two or more subsamples are represented according to some predetermined proportion, generally in the same proportion as they exist in the population (Black and Champion, 1976; McBurney and White, 2007).

Sampling strategy for the districts focused on the two different criteria, geographical and development regions, used for division of the country. Thus 75 districts of Nepal were categorized into 9 strata – East, Mid and West in terms of development region and Mountain, Hill and Terai by ecological region. Thus these nine strata were East Mountain, East Hill, East Terai; Central Mountain, Central Hill and Central Terai; and West Mountain, West Hill and West Terai. Out of 75 districts in Nepal, there are 16 districts in the Mountain region, 39 in Hill regions and 20 in Terai region. Therefore in the each stratum of the Mountain and Terai one district was sampled and two districts were sampled from each strata of Hill region. Thus total number of sample districts was twelve.

Sample districts were chosen using exclusion of the sampled district strata for sampling next district so that twelve districts sampled would represent ecological belt – Mountain, Hill, Terai and also represent development region of Nepal – East, Central and West regions. Thus Shankhuwasabha, Rasuwa and Humla were sampled from Mountain region; Dhankuta, Uadayapur, Lalitpur, Nuwakot, Kaski and Doti districts were sampled from Hill region; and Morang, Parsa and Kanchanpur from Terai region.

Respondents for the interview and FGD or GD were selected on the purposive sampling basis which is defined as non-random sample that is chosen for some characteristics that it possesses (McBurney and White, 2007). The respondents were selected based on the person's response on the request of researcher and their availability of time. Thus more number of probable respondents was contacted than the number of respondents in this study. In case of sampling of schools convenience sampling technique was used. This sampling technique is also non-random and is chosen for practical reasons (McBurney and White, 2007). The schools for the study were chosen from the desirable population (one from urban area and another from rural area from the sampled districts). Schools known to the researcher or advised by District Education Office or local friends that were among the desired population of the study were contacted and explained the purpose of the visit. In order to address limitations of purposive and convenience sampling, triangulation method has been used as far as possible.

Altogether 24 schools were selected for the study purpose (please see appendix 2 for the list of sample schools). In each of the sample school, study focused on the following study activities:

1. Classroom teaching learning observation
2. Interaction with head teachers, teachers, students at the school
3. Interaction with parents, community members at the community level.

Altogether the study has covered following in its sample:

1. Twelve districts and twenty four schools
2. One hundred and forty four classes/lessons (2 teachers x 3 classes X 24 schools) for classroom teaching learning observation
3. Twenty four head teachers, 48 teachers, 85 community members for interaction.

In case of selection of the educationists and ministry personnel qualitative sampling was used (Henn, Weinstein and Foard, 2006). In this the snowball technique is used where strategically important person known was contacted and references sought from him/her. The person referred by the contact person was then contacted. In this way twelve of the educationists and ministry personnel involved in the education policy development at different times have been interacted. (Please see appendix 3 for the list of the respondents).

### 3.2.5 Data Analysis

Kerlinger (1992) defined 'analysis' as the means of categorization, ordering, manipulating and summarizations of data to address the objectives of the study and related term to this 'interpretation' which takes the result of analysis, makes inferences and draws conclusion. The research design used in this study is descriptive design. Description may be quantitative or qualitative. Quantitative description is based on counts or measurement which are generally reduced to statistical indicators such as frequencies, means, standard deviations, etc. (Anderson and Arsenault, 1998). Qualitative data are analyzed in interpretative ways whereby the researcher makes judgments about what the data/information say. The data/information reported describes the situation and the

researcher seeks to interpret their meaning within a particular context. Sometimes the interpretation is bounded by the data/information under the study, but more typically it is interpreted in the light of theory (Anderson and Arsenault, 1998).

This study analyzed data/information obtained by using both qualitative and quantitative methods. Description is based on literature and document review/study; classroom teaching learning observation; interactions; sharing sessions with the educationist, ministry personnel and related stakeholders. This descriptive study conducted the following activities: 1) Depict and describe government policy regarding pedagogical emphasis (such as child centred education and diversity education) in the primary schools, 2) Study and describe existing pedagogical policies and plans for the primary schools, 3) Study/review classroom pedagogical practices in the primary schools and analyze them, 4) Study the literature related to theory and practice on classroom pedagogical approaches (specifically child centred approach) and describe if any gap exist in the pedagogical emphasis and classroom practice by comparing existing practice with the pedagogical principles. Particularly, in the analysis of classroom observation data frequency, mean and percentage are calculated and presented.

Descriptive analysis covers retrospect and prospect analysis in this study. The description is based both on what has been in practice (retrospect), examine and describe classroom practices existing at present, and draw out visualized as well as feasible classroom practices to be adopted for improvement in the classroom pedagogy in the primary schools in Nepal (prospect). Retrospect (the past) and prospect (the future) is a time continuum and a demarcation time point has been selected at 1984 as present pedagogical emphasis in the government planning document and curriculum has been stated as continued improvement and reform starting from initiation of Primary Education Project (PEP) initiated in 1984. This study has qualitatively analyzed intended and implemented pedagogical practices both in the past and present. Based on this analysis a pedagogical framework has been proposed. Findings from interaction, observation and study/review have also been triangulated.

# CHAPTER IV

# PEDAGOGICAL PRACTICES IN THE NEPALESE PRIMARY SCHOOLS AT RETROSPECT

This chapter presents retrospect analysis of the pedagogical practices in the Nepalese primary schools. In this course a brief description of the educational development in Nepal is presented; pedagogical emphasizes are analyzed and outcome of these endeavours synthesized. As mentioned in the study methodology this retrospect analysis covers the time period before 1984 when Primary Education Project (PEP) was initiated. In addition perceptual information from the stakeholders is also presented in this chapter.

## 4.1 Development of Education in Nepal

Development of education in Nepal, before the advent of democracy in 1950, was sporadic and sluggish. Similarly religious and classical Sanskrit systems of education dominated Nepalese education system for a long period of time until a new turn was given in 1853 with the establishment of Durbar (meaning palace) School, an English system school. In this section historical development of school system in Nepal is described under three sub-headings – historical development of education system before Rana period, that is up to 1853; during Rana period, i.e. from 1853 to 1950; and after advent of democracy covering period from 1950 to 1984.

### 4.1.1 Before Rana Period

Buddhist and Hindu system of education can be traced back to having influenced Nepalese education system from pre-historic period. In earlier days, particularly during the Licchavi period, existing educational institutions were probably Buddhist ones (Bista, 1994). Advent of the Sankaracharya in eleventh century introduced Sanskrit system into Nepal and gradually pushed earlier system northwards. Role of Nepal in the development of education has been a catalyst one for the fusion of the Aryan Brahmanism, Buddhism and Boupoism of the Tibeto-Burman races (College of Education, 1956). Buddhism and Brahmanism interpenetrated and mingled in Nepal.

Buddhist system of education was connected with monasteries and the Hindu system of education model was that of Gurukul where relationship of the guru (teacher) and shishya (pupil) was emphasized. Monastery was built on a three-level organization of the University Board (La-Chi), the college (Dra-Chhang) and a boarding hostel (Khamjen). The Hindu system was interwoven in the Varnashram system where each Varna (group) had different schools to go to and different subjects for study. As such Devkula was developed for the study of the cosmos, Gurukul for general education, Rhishikula for meditation, and Rajkula for political education. In the course of time these schools vanished, but Gurukul among them was still in existence during the founding of modern system of education in Nepal as well. (CERID, 1997; Sharma, 2005).

### 4.1.2 During Rana Period

Jung Bahadur Rana, the first Shree 3 Rana Prime Minister went to England in 1850 to establish stronger tie with them. After returning from his visit to England and France, Jung Bahadur started some modernization initiatives. The opening of the first English type of school in 1853 was one of such initiatives. The school was provided space within Jung Bahadur's palace. Therefore the school was called 'Durbar (Place) School'. Rana intentions were also to confine modern school education to the children of their family only. From the beginning, there was fear among the Rana rulers that education could play an instrumental role for the change. On the other hand they had the impression that English education was important. Therefore Ranas tried to keep the school under close scrutiny and confine the education to ruling members (Bista, 1994; Sharma, 2005).

Development of education during Rana period was not only slow, but also haphazard. During 30 years of rule of Jung Bahadur there was no attempt to open up educational opportunities to the public and educational development was restricted around Darbar School. There were some Ranas who were relatively more liberal, but the majority of Ranas were there to thwart these liberal endeavours. Ranodip Singh Rana, successor of Jung Bahadur, moved Darbar School from palace grounds and opened it to other non-Rana children of high status. No other school was added until Dev Sumsher Rana became prime minister in 1901. Almost two hundred schools were opened during his four months' rule. With his being in office for four months Dev Sumsher was exiled by his

brother Chandra Sumsher punishing him for his liberal attitude. These new schools were soon closed down. (Bista, 1994).

Bhasha Pathsala, a Nepali language school was developed during Rana period to train human resources in clerical skills for administrative works. Higher caste male children attended this school. Basic Schools, on the principles of Mahatma Gandhi, were also opened in Nepal after independence of India in 1947. The religious schools existed with these new developments during Rana period. (Bista, 1994; College of Education, 1956). However, educational development was arrested rather than occurring in their natural growth during Rana period.

### 4.1.3 After Advent of Democracy

Within the advent of democracy in Nepal in 1950, there has been a tremendous increase in the number of schools and the pupils within a short span of time – where there were only six high schools in Nepal by 1948, there were 77 to 84 high schools by 1956 (College of Education, 1956). Enthusiastic people started opening schools in their community with high spirit and social motive. Real concerted efforts with planned programs also started. In this course the first education commission 'Nepal National Education Planning Commission' was formed which started its works on 22 March 1954 and submitted its final report on 1 March 1955.

Nepal National Educational Planning Commission (NNEPC) marked the beginning of the planned development of the education sector in Nepal. This Commission initiated a comprehensive national education system in vogue (MOE, 2000). This report described the Nepalese historical, geographical and societal contexts; narrated educational developments and analyzed requirements; and put forth plans for school and University education. The Commission faced several difficulties such as unavailability of accurate school level data; difficulty in defining a school and the pupil attending in it; etc. A number of innovative concepts were also brought up in the report such as free education; universalization of education; multi-purpose secondary schooling; graded standards at the primary level; credit certification, etc. The commission also undertook research to generate data and information required for proper planning.

Interim governments were in function until 1959 after democratic movement and fall of Ranas in 1950. Nepal's first general election, held in the spring of 1959, gave Nepali Congress a vast majority and Nepal was under the prime ministership of B. P. Koirala. This government was paving way to modernization and development within a short period. At the same time intrigue against Nepali Congress government was started from the royal palace and some of the opposition parties. There was protest against taxation, land reform and other progressive measures of the Nepali Congress government (Shaha, 1982). Royal coup on 15 December 1960 took over and clamped down the first elected government after 19 months of its being in the office. Partyless Panchayat System was established. Since then like other spheres of government, education was used to strengthen monarchy in Nepal.

'All Round National Education Commission' (ARNEC), the second education commission in Nepal commenced its work in 1961. The rigor and comprehensiveness established by the first education commission in Nepal started to erode from ARNEC. This commission worked for nine days, set out fifteen meetings and worked for a total of sixty two and half hours. As could be assumed the commission prepared its report based on the ideas and judgments of the commission members. Some of the proposal of the NNEPC was reiterated in the ARNEC report such as universal and free primary education, vocational education (MOE, 1961). But what had been done and accomplished during the period of first commission and the second one had not been analyzed nor were there any lessons drawn.

Lack of consolidation effort and working from the scratch continued in following education commissions as well. But what remained intact was to promote education for safeguarding the monarchy. The third education commission, 'The National Education System Plan' (NESP) in 1971 stated objective of the education as, "… to produce citizens who, with full faith in the country and the Crown, will conduct themselves in accordance with the Panchayat system and to meet the manpower requirement of the development through the spread of scientific and technical education" (MOE, 1971). Two of the striking features of this commission were compulsory vocational education at grades 8, 9 and 10 and nationalization of the schools. Though some of the intentions seemed to be

good, implementation was devastating. Both political system and educational system arrested development of Nepal. Panchayat system restricted people's participation in the governance and nationalization of the school restricted opening of the new schools which in turn restricted access to education to many Nepalese children.

There was a gap of about twenty years in commissioning another education system plan in Nepal. 'National Education Commission' (NEC) was formed in 1990 after the reinstatement of democracy in Nepal in that year. This commission organized interaction sessions, study tours and sharing sessions. The report of the 'High Level National Education Commission' (1999) reflected on the plans of the NEC, analyzed the progress and shortfalls in some respects and tried to formulate further plans. After 'High Level National Education Commission' no other national education commission has been formed in Nepal. However there are various national education plans which play important role in the development of school education in Nepal, such as EFA and SSR. These plans and programs fall in the preview of existing practices in this study design and is elaborated and analyzed in the next chapter.

## 4.2 Pedagogical Practices in the Nepalese Schools

Informal educational setting in Nepal slowly developed to a modern formal setting. With the passage of time schools started to take physical shape, curriculum developed, textbooks written and classroom activities enacted in better ways. These pedagogical aspects, in the retrospect term, are described in this section.

### 4.2.1 Before Rana Period

Religious education system of this period was mainly organized in the religious places such as Gompa or Ghang. Education was provided to the students in a Gurukul or at a Guru's home as well. Teaching was mainly of the religious books in the language the text were written. Various such aspects related to pedagogy before Rana period in Nepal are described here.

**4.2.1.1 Physical Infrastructure:** Gompa, Ghang, Vihara, Monastery were the places for the Buddhist type of education. Regular lessons for a class of Lamas were

given in an open air arbour or amid clusters of trees (College of Education, 1956). Institution of Hindu Varnashram system intertwined the society within a religious code. Each Varna (group) had different schools to go to and different subjects to study. As such there were Devakula, Gurukula, Rhishikula and Rajkula.

**4.2.1.2 Curriculum:** NNEPC report (College of Education, 1956) elaborated Buddhist education provision on the curriculum. Dra-chhang (the college) supervised the smaller units 'Khamjens' (a boarding hostel) on the linguistic and geographic areas such as the Gurkha Khamjens for the Nepalese students and Chinese Khamjens for Chinese students. Theoretically admission was open to all. The curriculum embraced all aspects of religious rites of catering to the daily needs of the populace. One could specialize in vocal training or opt for business and trade or become painter or become a dreamer. There were fighters or just hanger-on. The academic year was divided into two periods of six months as in a semester system. There were altogether 15 or 16 classes, each with a different name. The subjects covered were mainly Pali language, Buddist Philosophy and Literature, Tripitak, Jatak (Sharma, 2005).

In the Hindu education system learning traditionally consisted of ritual, prayer and reading of religious texts (Bista, 1994). Gurukul, which remained in practice for longer period, provided Vedic education. Vedic Sanhik, Veda, Verdant, Philosophy, Theology, Puran, Ayurved, Upanishad, Mimamsa, Grammar, Nayya, Memory, Aygam, etc. Verna specific skills were also provided in Gurukul such as archery and horse riding to the Chhetrias and animal farming, agriculture, business and trade to the Vaishayas. The later Sanskrit schools were funded by grants and gifts under the Guthi. The size of Guthi determined the resources of the school – Prathama (primary grades for 7-8 years of age) and Madhyama (middle grades for 13-16 years of age).

**4.2.1.3 Medium of Instruction:** Medium of instruction in the Buddhist system was in Pali language and in the Hindu system it was in Sanskrit. The grammarian Panini bound Sanskrit to such a stiff rule that the language became inaccessible to the common people. The candidates were required to master the grammatical forms which occupied

most of their time – more than six years even after eight years in the primary and middle schools (College of Education, 1956).

**4.2.1.4 Instructional Materials:** Religious texts and selected literature were the main materials in the religious system of education. Due to lack of multiple copies of text, there was tradition of oral transmission of knowledge. Only few handwritten manuscripts were available until printed materials used to be supplied.

**4.2.1.5 Classroom Pedagogy:** Religious type of education, both Buddhist and Hindu, were mainly rote learning, group delivery and chorus repetition. This type of pedagogy has been described by Alexander (2000), "the mode of transmission was oral – through constant recitation and repetition, backwards and forwards from teacher and pupils, texts were committed to memory". Teacher assumed high status as a source of knowledge and a fair measure of autonomy as to the selection of texts and the pacing of pedagogy in respect of individual needs and progress. Basically those who have already memorized given piece of text and can recite to the teacher would be given next piece of task (Altekar, 1956). NNEPC report describes a set routine in a monastery:

> The day's routine for a student began with prayer at the break of day in the prayer hall… The students squatted cross-legged in long criss-cross rows over carpets. The Khembus (the college president) occupied high raised seats and looked upon the congregation. The choir leader squatted on a dais and chanted hymns, with regular intervals for tea. The singing of psalms was done in a deep bass (to imitate the voice of Buddha) by the choir leader, followed by the thousand voices of the students. There were occasional clapping to mark the pause in the stanzas and also to drive out the evil. With the coming of day, the students attended open air classes, sitting on the ground, each class forming a group. In the meantime, the Khembu arrived to take his seat on a platform and gave a lesson. While one class was receiving instructions, the rest formed circles and practiced debating. (College of Education, 1956, p. 15).

The religious books which were the main source for teaching and learning were to be savoured and illuminated rather than interrogated (Alexander, 2000). Memorization and repetition of the content matters rather than understanding and intellectual transformation of them was the practice. Students devote greater part of their lives to their studies

without understanding the meaning and the context of what they were reading about (College of Education, 1956).

**4.2.1.6 Assessment Practices:** In the religious system of education, formal types of examination systems were lacking. In the monastery yearly promotion was automatic without any recognized system of examination (College of Education, 1956). In the Sanskrit education system as well there was no prescribed periodical or annual examination. Student's progression on the lesson depended upon the teacher. Teacher gave new lessons to a pupil only when the teacher was satisfied that the old lesson had been mastered which usually required rote memorization and repetition of the lesson. The end of the education course was not marked by any lengthy or exhaustive examination, but by the pupil reciting and explaining the last lesson. No degree or diploma was given. (Altekar, 1956). Lack of formal examination in the religious education system has been pointed out for lack of qualitative improvement in the education. NNEPC (College of Education, 1956) report puts, "Some are of the opinion that in the absence of any system of examination, critical studies competition, appropriate institutions and qualified teachers to take charge of different faculties, arts and sciences gave place to ritualism and hidebound formalism connected with the prayers, incantations and blind worship".

### 4.2.2 During Rana Period

Religious education continued to exist during Rana rule. There was some development of modern type of education during this period. With the introduction of modern type of education some modern ways of pedagogy were also adopted. These aspects are described in this section.

**4.2.2.1 Physical Infrastructure:** Opening of Durbar School in 1853 by Jung Bahadur Rana introduced modern English type of education in Nepal. Until 38 years of the opening of Durbar School, the school had no building of its own. It was transferred several times in Rana palaces where it would be provided space for teaching. In 1891 a separate building was built for the school where Durbar School was run in the upper floor and Ranipokhari School in the ground floor (Sharma, 2005). Few Sanskrit schools were running as it used to. For the next forty years no other schools were added or opened

(Bista, 1994). Two hundred schools opened by Dev Shumsher Rana in 1901 was closed down by his brother Chandra Shumsher after four months time. Ranas seemed wary in the development of education fearing rebel if the public was educated.

**4.2.2.2 Curriculum:** Sanskrit schools which continued in the Rana period were for religious purposes. Bhasha Pathsala for Nepali language trained students in clerical skills to become clerks in the Rana administration (Bista, 1994). The English type followed the British model of India, which was accredited on the basis of the Oxford and Cambridge examinations. The curriculum was derived from the English model which included courses in English, mathematics, history and geography. Bista (1994) further elaborated, "While Nepali and Sanskrit were taught, little else of Nepal was introduced. The history or geography that was taught was confined to that of the British Isles and India". The textbooks used rarely changed. For example textbook of Grade 2 'First Book of Reading' written by Peary Charan Sarkar was in use for 70 years. Similarly, 'Sanskrit Grammar' of Bhandarkar, Algebra of K. P. Basu, 'Arithmetic' of Jadav Chandra Chakravarti, etc. were in use (Sharma, 2005). Basic schools, following principles of Mahatma Gandhi, emphasized on rural vocational training. The qualifications of the teachers required were Entrance pass to teach up to grade VI, I.A. pass to teach up to grade VII and Bachelor to teach grades VIII to X. There was no age limit to join Durbar School so that children as well as youths used to enrol there. When failed in the examination, youth used to drop out and children repeated class (Sharma, 2005).

**4.2.2.3 Medium of Instruction:** Medium of instruction at Durbar School was mainly in English and Sanskrit in the Sanskrit Pathsala and Nepali in Bhasha Pathsala. Later Nepali and Sanskrit language was also introduced at Durbar School. Nepali language was felt important for administrative purposes and Sanskrit language for religious purposes. At the time of rule of Dev Shumsher there was discussion on what type of education should be in place in Nepal and what should be medium of instruction – English, Sanskrit or Nepali. But a consensus on this matter could not be reached. One of the prominent youth Jaya Prithivibahadur Singh was strongly in favour of teaching learning in Nepali medium in order to promote spirit of nationalism. He also developed Nepali language primer book 'Achhyarank Shikshya' which was distributed free of cost

to the students. In 1945 Padam Shumsher even declared Sanskrit language a dead language and emphasized teaching learning in mother tongue. (Sharma, 2005).

**4.2.2.4 Instructional Materials:** Education during Rana period was mostly confined to textbooks which rarely changed over the years. No other instructional materials seem to have in use during teaching learning. These were non-existent. Even chalk-boards were not available in most of the classes; the teacher and children write in the dust of the floor (College of Education, 1956).

**4.2.2.5 Classroom Pedagogy:** NNEPC (College of Education, 1956) report viewed curriculum then in vogue to be mostly academic in character. Such a curriculum was not able to serve many academically qualified children. The methods placed heavy emphasis on drill, memorizing and lecturing. In such a method the child without a photographic mind and unusual memorizing ability could not survive in the system and had to drop out. Lack of instructional materials limited teachers in direct teaching.

**4.2.2.6 Assessment Practices:** In the Durbar School there was provision of half yearly and yearly examinations. Medium of examination was also English language. There was oral test up to grade four and from grade five the test was in written. One had to pass all the subjects to get promoted to the next grade. In Ranipokhari Pathsala, where Sanskrit curriculum was in use, there was no provision of test and certification. However there was provision of Salaka test (Sharma, 2005). Students were tested/examined for discourse in the discipline, efficiency and discipline. Students were supposed to be accurate and fluent in recitation. But there were not formally certified. After 1901 examination was conducted to select clerks in which they had to appear for Nepali essay and Arithmetic tests. Those candidates passing these two subjects were called Dui Passe (meaning passed in two subjects). In 1910 an office to manage this examination was formed and this office also provided certificates to the successful candidates. In 1931 two more subjects were added and the successful candidates were called Char Passe (meaning passed in four subjects).

### 4.2.3 After Advent of Democracy

Nepal entered into a new era in 1950 after over throwing autocratic Ranas. Door of modernization opened and opportunities expanded in Nepal. Education became one of the most aspired elements in Nepal and it started to expand rapidly. Educational development in Nepal after advent of democracy until 1984 is described in this section. Three education commissions in 1956, 1961 and 1974 worked during this period.

**4.2.3.1 Physical Infrastructure:** NNEPC (College of Education, 1956) report described many schools of that time to be of the 'one-room type with one or two teachers'. Classes were conducted even under a tree or a thatched roof. Most of the schools were quite limited in their facilities for offering good education and the equipments were quite meagre. This commission suggested minimum of three acres of land for a primary school up to five rooms in size. The primary schools were expected to have adequate play space and with proper drainage and an aesthetically attractive environment. It was suggested to limit 30 students in a class where minimum of nine square feet per pupil would be provided. A library, laboratory, craft workshop, community room, office room, teacher common room were also deemed essential for a school. In the primary classrooms floor mats and individual writing boards were expected at the minimum though preference was on individual desks. Chalk boards, bulletin boards, teacher's desk and chair, storage facilities, sand table and other equipments for project work were equipments suggested as necessary in a classroom and adequate play materials, garden, area for agriculture at the school premises.

ARNEC, 1961 did not report on existing condition nor did it reflect on the suggestions and implementation of previous education commissions. This report accepted that there would be existence of 'one room school' till single school and teacher for each of the grades could be arranged. When and how this would be achieved was not discussed in this report. This report emphasized co-education with 25-40 students per teacher. Priority was on boarding school for quality education. After 10 years of this commission another education commission presented its report 'The National Education System Plan for 1971-76' (MOE, 1971). NESP suggested 1:30 teacher students' ratio at the primary level. This report also viewed appropriate building, furniture, playground and physical facilities

essential for a good education. The first education commission's, i.e. NNEPC, suggestion for 'establishing standard for school buildings and their sites' was reiterated in NESP 'formulate and enforce rules specifying the kind of physical facilities needed for different places and functions'. These statements indicate that not much was done during 15 years time for improving physical infrastructure of the schools besides jotting these plans on paper.

**4.2.3.2 Curriculum:** NNEPC envisaged primary level to be 'graded standard' where pupils would be grouped into grades or classes on the basis of ability, social development and physical maturity. The emphasis was on single, national system of education with national level curriculum, examination system and control. The curriculum suggested for the primary level was learning experiences in Social studies, Science, Language, Arithmetic, Crafts, Aesthetic arts, and Personal development. This commission cautioned:

> It should not be assumed that these experiences need to be unrelated or provided as separate "subjects". Indeed, many of them cannot be separated…. The commission believes that primary education should be highly integrated and that insofar as possible the experiences should be organized around broad, central themes or units which may be studied for three to six weeks or longer and which involve as many different types of activities as possible. (College of Education, 1956, p. 94).

ARNEC suggested age-wise placement at the class – 6 years old at grade 1, 7 years old at grade 2 and so on. This report did not provide reason why 'graded standard' suggested by NNEPC was repudiated. ARNEC suggested seven subjects for the primary grades – Language, Social Studies, Science and Health Education, Mathematics, Arts, Self-reliance Education and Physical Education.

NESP envisaged that curriculum for primary level should emphasize on teaching rudimentary skills in reading, writing and arithmetic along with some instruction in an occupation connected with the realities of life, specially an elementary knowledge of agriculture. The provision of the subjects for grades I-III were Nepali Language, Arithmetic, Social Studies, Physical Education and Hygiene, Handicrafts and Drawing while the subjects for grades IV-V were Nepali Language, One of the United Nations (UN) Languages, Social Studies, Mathematics, Science, Pre-vocational Training and

Physical Education and Hygiene. NESP intended to shape curriculum for character-building, promoting royalty and love and respect for labour which NESP report put in these words:

This is the appropriate level for character-building. Classroom teaching will, therefore, lay stress on the lives of national heroes and the contribution of the Royal Family to the development and enhancement of the country. Extra-curricular activities will be designed to foster patriotism, loyalty, sense of discipline, appropriate motivation and right skills…. An attempt should be made at this stage to inculcate love and respect for labour…. This is the right stage to initiate efforts at making education vocation-oriented and socially useful. (MOE, 1971, p. 25).

**4.2.3.3 Medium of Instruction:** All the three commission reports of this time duration, 1956 to 1971, emphasized Nepali as the medium of instruction at the primary level. NNEPC stressed, "Nepali should be the medium of instruction, exclusively from the third grade on, and as much as possible in the first two grades." (College of Education, 1956). Insistence on Nepali language as medium of instruction was 'to promote national unity and strength'. ARNEC reemphasized Nepali to be medium of instruction in all the grades of primary and secondary levels. NESP also provisioned Nepali language as the medium of instruction. NESP suggested assimilating words and phrases from different regional languages into the national language (i.e. Nepali) so that Nepali language might be further enriched and so developed into a more effective medium of instruction.

**4.2.3.4 Instructional Materials:** NNEPC pointed out serious shortage of instructional materials – equipments for teaching nature study and science, fine arts and music, geography and history, etc. were almost non-existent. Books written in Nepali were seriously lacking. Even the simplest audio-visual aids were missing. To give an example of dilapidated condition the report writes, "frequently there is no chalk-board; the teacher and children write in the dust of the floor" (College of Education, 1956). NNEPC devoted almost a chapter in the 20 chapter report and recognized the 'physical and material environment of learning' to be one of the three factors to be considered in

the educational experiences of children – other two being 'the learner' and 'the teacher'. NNEPC detailed out the types of the materials that would be required for effective classroom teaching learning and the ways these materials should be used. ARNEC mentions mostly about the books rather than instructional materials. NESP, along with the textbook, suggested provision of various educational materials for effective teaching learning. Educational Materials Organization established in 1958 was named as Janak Education Materials Centre in 1971 which NESP envisioned as the Centre to undertake writing, printing and distribution of textbooks; produce and distribute educational materials or provide schools with model sets along with guidebooks.

**4.2.3.5 Classroom Pedagogy:** The main aspect in the quality of education is classroom pedagogy that ensures student's learning and achievement. Improving classroom delivery/classroom pedagogy and enhancing students' learning have been major features in the educational plans in Nepal. NNEPC emphasized both expansion of the education in terms of access and qualitative improvement of delivery. Quality of education has been a major educational focus since this commission. This commission's report clearly demands respect for the individual differences and intelligent adaptation of the curriculum to various local conditions and to the individual differences of children. In effect this is related to child/student-centred principles. Reflecting upon the classroom pedagogy then in practice NNEPC found the curriculum to be highly selective and academic so that many academically qualified children were not served. The classroom practices made a child without a photographic mind and unusual memorizing ability to drop by the wayside. Drill and memorization was worse in practice in the Sanskrit School, Pathshalas and the Gompas where students devoted many hours to memorizing pages of Sanskrit usually from early religious writings or texts from Kanjyur and Tanjyur for hours. Children recite these pages in unison, sitting on the ground cross-legged and swaying back and forth to maintain rhythm. Pedagogical practices suggested by NNEPC were 'to teaching children than covering textbooks', 'use thematic approach', 'arrange both teaching periods and practice time', 'make children take an active part in the learning process', 'follow the activity or project method', 'cooperative teacher-pupil planning', 'method of teaching should be informal and well adjusted to children', 'cater individual needs of the children', etc.

ARNEC also recognized that there exist differences among individuals physically, mentally and affectively. Like a doctor diagnoses a disease on the basis of history and tests and then prescribes treatment, teaching should also be based on the diagnosis of student's history, physique, feeling, and mental development. This statement implies a diagnostic and individualized approach in teaching. NESP was not explicit on classroom pedagogical approaches. It just intended to conduct research to improve teaching methods for each subject. The intention was on the use of scientific methods.

The better prospects with regard to classroom pedagogical approaches as intended in 1956 and 1961 education commission reports seems to have not been implemented into classroom practices. The common classroom pedagogical practices seemed to be not effective as pointed out by the NEC in 1992. This commission's report stated, "The teaching learning situation in primary schools is rather depressing…. Students are encouraged to learn by rote, and assessments are made on the same basis."

**4.2.3.6 Assessment Practices:** NNEPC pointed out backwash effect of examination on the classroom teaching. Most of the schools, primary as well as middle schools, were found devoting the last two or three months of each year to prepare for final examinations. It was solely the annual examination held at the end of each school year that determined the learning progress of the pupils. This commission suggested students' evaluation should be in line with the objectives of the education set, i.e. well-rounded and complete education. Evaluation should not be limited in checking progress only on academic goals or those that could be achieved through mental effort as these could be measured easily. It was suggested that the evaluation of pupil's progress should include physical, social and all aspects of mental development. Measuring all aspects of education goals such as the ability to think, inquisitiveness, initiative, responsibility, skills in reading charts and graphs and maps, honesty, good health, friendliness, cooperation, etc. were indicated to be more important – 'more important than the ability to memorize in parrot-fashion'. The commission also cautioned that measuring these varied goals of education would require more than paper tests such as observation, self-rating, performance and such other devices. Evaluation tools were suggested to be used frequently in order to help pupils improve. Evaluation was to be continuous and records

kept for each pupil so that pupil's progress is known. In such provision traditional 'final examination' was of little value as teacher would in advance know whether the child has progressed with the average of his/her group. For the certification at the termination of primary education, it was suggested to provide each pupil certificate indicating completion and in a general way the quantity of work and a recommendation regarding future schooling plans as determined by his/her strengths and weaknesses.

ARNEC also suggested automatic promotion of the pupils on the basis of continuous and comprehensive evaluation. Method of the examination at the primary level was to be oral and activity-based. Pupils were supposed to be evaluated monthly in their sports, characters, knowledge of the subject matter, etc.

NESP suggested formal system of examination system. There was to be provision of internal assessment, quarterly examination, progress record, improved questions and marking, standardized test and terminal examination. Terminal examination at the end of primary education was to be conducted by a team of district school inspectorate officials and promote students on the basis of their performance in the examination.

It is difficult to fathom if such progressive suggestions were indeed implemented. In one of the publication, i.e. 'On Education in Nepal' of the Office of the National Education Committee in 1974, Shrestha wrote that the transitional examination administered at the end of each grade and the terminal examinations such as the School Leaving Certificate, were the only means of assessing students' progress. These examinations were usually 2-3 hours' duration and sought to evaluate the students' knowledge of the subject matter by means of about 10 to 15 essay-type questions. Though 2-3 years has elapsed from the NESP report to this publication no much implementation work seemed to have been completed as Shrestha (1974) expresses hopes rather than cite actual accomplishments such as 'teachers are oriented to use evaluation tools to evaluate student progress continuously and comprehensively', 'it is expected that student progress record system will have a significant impact', 'it is recommended to take initial steps towards the construction of standardized tests'.

## 4.3 Perception on the Pedagogical Practices in the Nepalese Schools

Educationist, experts and concerned persons in the past period (head teachers, teachers and students of the time covered as retrospect in this study) were asked about pedagogical aspects as in practice during the time.

### 4.3.1 Physical Infrastructure

Respondents pointed out dilapidated physical infrastructure of the schools during the time they were students at the primary level and it was poorer in the past. In the retrospect timeline, it can be depicted a developmental stages in the pedagogical aspects.

Respondents who are retired now shared that there were no separate school building. They use to gather in an open space (such as Choutari), public places (such as temple area, Matha, Pati, Poua, etc.), at teacher's place or at a rich person's place. Some of them had started their school at their own home as well where a teacher would visit or someone from home would teach. Though respondents were few in number in this study, the responses corresponds with the descriptions in the documents covering historical development in education.

A decade or so before advent of democracy in Nepal, school buildings were built by the government, but these were few in number. After advent of democracy, government as well as community started to build schools or used existing building as a school. There were school buildings as well as continuation of other provisions where there was no school building yet. Where there was a school building, respondents recalled having usually poorly lighted, poorly ventilated, meagre resources, floor seating, one teacher and multi-aged/multi-graded composition of students.

Respondents of who were educated before 1984 pointed out some improvement in terms of building, classroom, furniture, etc. There were more classrooms, more teachers, some furniture, etc.

*This brief narration shows that there has been gradual improvement in physical infrastructure as Nepal moved ahead in the historical time lane, but adequacy and appropriateness of these is another issue.*

### 4.3.2 Curriculum

Oral transmission of knowledge – teacher reading and students reciting and memorizing; religious books (such as Durgaswat); alphabets and numbers; multiplication table were the major content provision at the beginning. Few were fortunate to get some books brought from India.

There was no specified curriculum and textbook as such. Teacher was the decision maker also what to teach, how to teach and evaluate. The teacher used to give certain lesson and when the given lesson is completed and submitted (usually reproducing by rote) and teacher would assign another lesson. On the same basis teacher would decide which grade the student is to be placed based on his/her performance. Prescribed textbook started with establishment of Durbar School and curriculum designing started after democratic movement only.

### 4.3.3 Medium of Instruction

Medium of instruction was Sanskrit or Nepali for most. English language was emphasized later. Local languages were seldom used in teaching learning. Rote memorizing Sloks, poem or contents in the given language was the emphasis. Only few teachers used to explain students the content matter in the local language when the students were not able to comprehend/understand them in Sanskrit or Nepali or English, the language used in the textbook and instruction.

### 4.3.4 Instructional Materials

There were meagre provisions of instructional materials at the venue where instructional activities were organized as well as with the students/learners. For writing there were responses of writing over the dust with finger or stone or using a piece of wood flake covered with charcoals paste which seemed to be gradually replaced by slate and chalk and later by writing paper and ink. Chalk and duster seemed to have been used 40-50 years back only. Textbook and writing materials seem to be only instructional materials for a longer period.

### 4.3.5 Classroom Pedagogy

Teaching method used as shared by a cross section of respondents from different chunks of time periods indicates that rote learning was most dominant all the time. Some of the representative responses are listed below:

- Repeat after teacher or a lead student several time and later reproduce it by rote. Teacher assign next lesson only after one lesson is memorized and reproduced by memory
- Alphabets, number, multiplication table, words meaning, poem, story, grammar, list were usually rote memorized by repetitive mode
- Teacher asked to point on the book or copy while reading (sometimes pointed somewhere and reading different as well due to learning by rote)
- Some teachers used to hold hand to guide in writing letters and words
- Hard sentences given to translate into English or Nepali and English taught by translation method
- Learning was monotonous and not joyful so that most of students used to dropout
- Reading, recitation, handwriting practice, word meaning consume most of classroom time
- Mostly single teacher teach all subjects with all the students in one room/place and what teacher knew was the curriculum
- Teacher was usually recognized with a stick in hand. There used to be corporal punishment if wrong answer or unable to submit the assignment.

### 4.3.6 Assessment Practices

There was no formal examination in the lower grades and teacher was the sole evaluator and decider for the learning outcome. Teacher decided progress in the lesson as well as yearend promotion. Formal examination seemed to have been in practice after education practices after democratic Nepal.

### 4.3.7 Observations of the Respondents

Respondents were also asked to provide their observations comparing educational situation now and when they were a student at the primary level. All of them expressed

that there has been improvement in physical aspects of the school and some of the respondents pointed out that there is marked disparity in the physical resources among the schools.

Regarding instructional practices at present as compared to the way they were taught most of the respondents expressed that it has improved, specifically in urban centres. They also pointed out improvement as there is periodic revisions of curriculum, textbook and teacher' guide are developed which are lacking in past. Teacher training and reduction of corporal punishment in the schools are also observed as positive improvements in the schools today. They also expressed their dissatisfaction on prominence on teacher centeredness and rote learning emphasis in today's classrooms as well.

Respondents were also asked to share their views on barriers on the way of classroom teaching learning improvement. The major barriers stated were as following:

- Teacher would opt for the easy way if one is available and it would be first not to teach at all. If they have to reading from the book and paraphrasing would be the easier option.
- There is a largely lack of internalization of responsibility in teachers. Teacher preparation is also more focused on theoretical deliberation and certification.
- Teachers usually practice the way they have been brought up. In this way lecture oriented teacher preparation practices would only prepare teachers to lecture as well.
- Policy and programmes are not implemented as intended so that documents are good, but not translated into practice.
- As examination is given higher priority and examination test lower level of taxonomy, teaching is also more focused on rote learning.
- There is a lack of accountability.

### 4.3.8 Suggestions from the Respondents

Respondents were also asked to provide their suggestions for improving classroom teaching learning practices at the primary level. There was emphasis on overall

improvement and commitment for improvement starting from the top. Secondly, it was suggested to improve quality of teacher training such as making it more skill oriented than theoretical, bringing out clarity at the conceptual base, making training as a model itself for the classroom practice, and follow up of the training. Thirdly, it was suggested physical and educational environment of schools. Fourthly, there were suggestions to improve classroom teaching learning practices – joyful and child centred approaches, stopping chalk and talk, use of multiple teaching methods, stop corporal punishment, employ formative assessments, group work, learning from each other, making students active, etc. Besides there were suggestions to develop and use instructional materials, increasing home and school link, addressing issue of crowded classroom, etc.

# CHAPTER V

# EXISITNG PEDAGOGICAL PRACTICES IN THE NEPALESE PRIMARY SCHOOLS

This chapter presents analysis of the existing pedagogical practices in the Nepalese primary schools. As mentioned in the study methodology existing practices covers time period from September 1984 when Primary Education Project (PEP) was initiated with the major aim to increase access to primary level education and improve quality of education at this level. In this course brief description of the educational development in Nepal since 1984 to date is presented; pedagogical emphasizes are analyzed; teacher training endeavours assessed; perceptual information from the stakeholders narrated and outcomes synthesized.

## 5.1 Development of Education in Nepal from 1984

Advent of democracy in 1950 ushered Nepal in the modernization and planned development. People were free to think and work for their good and progress. There was tremendous growth of educational institutions throughout the country. Growth of the schools remained intact though arrested in some way in the Panchayat System era. Quality in education were raised gradually and positioned in a pronounced manner.

In the education system of Nepal pronounced initiatives for the development of primary education that has direct bearing at present could be traced back to 1984 initiatives with Seti Project, Primary Education Development Project (PEDP) and PEP. PEP had three major areas of activities – primary schools, the examination system, and administrative capacity at the central level and it was designed to a) achieve a low-cost qualitative improvement in primary education and b) strengthen the administrative and technical capacity of the sector (CERID, 1989a).

There was a gap of more than twenty years in commissioning another education system plan in Nepal after 'New Education System Plan' in 1971. 'National Education Commission' (NEC) was formed in 1990 after the reinstatement of democracy in Nepal in that year. This commission organized interaction sessions, study tours and sharing

sessions. There were some ambitious plans such as 'to raise the school-going population from the present 64 percent to 100 percent' and promises such as there is 'need of formulating clear plans and policies for the provision of primary education to the various linguistic groups' (NEC, 1992). This commission report tried to set quantitative targets and pointed out specific needs to achieve certain goals as well.

Master Plan for Basic and Primary Education (BPE) sub-sector 1992-2001, was developed on the basis of recommendations of NEC and Basic and Primary Education Project (BPEP)-I was implemented covering time period 1992-1996. BPEP, phase I had four main objectives: a) improving quality (through new curriculum, new set of textbooks, teacher training, improved and continuous student assessment, improved physical and learning environment); b) improving access to and participation in basic and primary education; c) improving system efficiency; and d) enhancing the relevance of basic and primary education (MOE, 1997). Building upon and learning from BPEP-I, BPEP-II 1997-2002 had slightly modified objectives – a) to enhance the relevance of BPE, b) to improve the efficiency of BPE, c) to improve the quality of BPE, and d) to improve the access to and participation in BPE.

During BPEP-II 'High Level National Education Commission' (1999) was commissioned. The report of the 'High Level National Education Commission' reflected on the plans of the NEC, analyzed the progress and shortfalls in some respects and tried to formulate further plans. This report highlighted some pertinent aspects such as low quality of education; need of incorporating pre-primary education in the school education system; bilingual education; contribution of private sector in education.

Next programme in the educational lane that proceeded was Education for All (EFA), 2004-2009 (MOES, 2003a). EFA has three main objectives – a) ensuring access and equity in primary education, b) enhancing quality and relevance of primary education, and c) improving efficiency and institutional capacity of schools and institutions at all levels providing technical backstopping to schools. During one quarter of the century from PEP to EFA spanning from 1984 to 2009 the focus of the educational endeavours has been access, quality, relevancy and efficiency. The emphases for quality improvement

were into curriculum revision, curricular materials development and distribution, teacher training, management, etc.

After 'High Level National Education Commission' no other national education commission has been formed in Nepal. However there are various national education plans which play important role in the development of school education in Nepal such as EFA and School Sector Reform (SSR).

## 5.2 Pedagogical Practices in the Nepalese Schools from 1984

Expansion of education and increasing access to education has been dominant factor in the educational development of education in Nepal. It is also equally important question – access to what kind of education. This implies quality of education and motivation to the children to come to school. This is also largely related to awareness about and relevancy of education. These relate to quality of education. Access to education has been focused mostly, but it has not entirely shadowed the concern for quality in education. Classroom pedagogical practices are determining factor in the quality of education.

In the Nepalese education system, heightened concerns for the quality started with the implementation of the PEP. For improving quality of education, improvement/provision in these aspects were emphasized – physical infrastructure, instructional materials, classroom pedagogy, trained teachers, etc. These aspects are described in the forthcoming paragraphs.

### 5.2.1 Physical Infrastructure

PEP came into effect in September 1984 and was piloted in six of the districts in Nepal. PEP intended to improve physical facilities of the school with the provision of 40% support (financial and technical) from the project and 60% from the community. An interim evaluation of PEP was undertaken by Research Centre for Educational Innovation and Development (CERID) in 1986 and its report was published in 1989. Compared to non-PEP schools PEP schools in the 6 project districts were found to be better. But still in 50% of the PEP-schools there was no compound wall; furniture in 56% of them was inadequate; shortage of rooms persisted making smooth running of class difficult

(CERID, 1989a). In this respect this report concluded, "The PEP school building were in better condition than those of the non-PEP schools, but the inadequacy of the number of classrooms and furniture affected the instructional activities."

BPEP-I (1992-1998) developed designs of school blocks for three ecological regions, toilet designs, furniture designs and rehabilitation plans for existing classrooms. Well ventilation, lighting and spacious for better classroom teaching learning practices. The minimum space standard was determined to be 0.75 sq. m. per pupil and a three seater bench-desk for pupils of Grade I, II and III and a two seater for pupils of Grade IV and V. An evaluation report of BPEP-I (Shrestha, et. al., 1999) reported that the physical appearance and accommodation capacity of primary schools have significantly improved. Physical facilities of about 8,000 primary schools out of 12,675 schools, i.e. about two-thirds of the total primary schools of the 40 project districts have been improved during BPEP-I. When primary schools as a whole in the country are considered there seems to have a lot left to be done.

The BPEP Master Plan for phase II covering period 1997-2002 (MOE, 1997) stated lack of reliable data regarding physical condition of the schools in the phase I project areas. The master plan designed to construct 6,500 classrooms in the phase I districts and 10,000 classrooms in the phase II districts, i.e. 35 more districts. Programme Implementation Plan of BPEP-II, 1999-2004 (MOE, 1999a) stressed 'the space per pupil at 0.75 sq. m. is still minimalist'. Programme Implementation Plan pointed most primary schools in Nepal lacked sanitation and water facilities, garden and fences/compound wall. It emphasized creating appropriate physical learning environment to schools thereby motivating children to continue their schooling. Technical panel report (MOES, 2001) found that there was no new or replacement classrooms were constructed though the target was 1800 by 2000. In case of classroom rehabilitation achievement was 70.8% and in case of drinking water, toilet and compound wall the achievement was 15.7% against the target set in the Programme Implementation Plan. However classroom construction, toilet blocks and water supply target set by Japan International Cooperation Agency were completely achieved.

During BPEP-II period itself 'Education for All National Plan of Action Nepal, 2001-2015' was prepared (MOES, 2003b). Survey of educational facilities, school mapping, rehabilitation, school physical construction, library, computer, laboratory, etc. were emphasized in the plan. More specifically this plan stressed several aspects to improve the physical facilities and learning environment – 1) maintain appropriate class size at grade one 25-30, 2) maintain appropriate class size at all primary grades 30-35, 3) ensure minimum classroom space per child 0.75 sq. m., 4) provide 2 computers to each of the primary schools, 5) establish school libraries in all primary schools, 6) establish science laboratories in all primary schools, 6) develop adequate/appropriate facilities at schools. Department of Education (DOE) monitoring has reported progress in the infrastructure development (DOE, 2006a).

School Sector Reform implemented from July 2009 sets 'enabling conditions for learning' minimum of which include:

> Minimum enabling conditions include: an environment for equitable participation, appropriate facilities, adequate instructional process and materials, and sufficient number of qualified teachers…. The Government will develop a national framework of norms and standards for enabling conditions. The government will develop a mechanism for defining minimum enabling conditions and for assuring that they are met. (MOES, 2008, p. 31).

SSR further elaborates enabling conditions and provides following guidelines for enabling conditions:

> Guidelines for minimum enabling conditions: i) Provision of minimum teachers in school, ii) A teacher student ratio of 1:40 will be applied in schools with population more than prescribed norms. Teacher student ratio of up to 1:40 maintained across all geographical regions, iii) Class size maintained at 40 students per class and minimum space per student in the class will be 1 square meter for basic education and 1.25 square meters for secondary education. Likewise, there will be separate classroom for each grade, well furnished, properly ventilated with writing board, desk and benches, and book corner, iv) Schools will be well roofed, have a compound wall, toilet (minimum one unit), playground, drinking water, office room, library, laboratory, and primary care room, v) textbook per child, curriculum and curricular materials and teacher guides, vi) Multi-

grade schools will have appropriate classroom facilities and materials and properly trained teachers as specified in the Multi-grade school guideline. (MOES, 2008, p. 31).

### 5.2.2 Curriculum

BPEP-II Master Plan 1997-2002 (MOE, 1997) reviewed situational status of that time stated a number of positive developments and some issues as well in respect to the curriculum. Positive aspects were: adoption of functional approach of curriculum development; defining terminal measurable learning outcomes to be attained at the end of the primary education cycle; objective-oriented approach of curriculum development; graded specific learning outcomes; provision of optional subjects; initiation of practice of curriculum dissemination; etc. The master plan raised several concerns as well: low level of students' achievement; attainability or feasibility of learning outcomes due to their presentation styles; ambiguity of many of the learning outcomes; vagueness of curriculum regarding the weighatge of content-area; no mention of integration among relevant contents across the subjects; involvement of the people in general at the local and grassroots level been remained minimal; lack of continual revision and improvement of the curriculum; provision of optional subjects not appropriately utilized at the local level; unavailability of the curriculum to all the teachers (20-30% reported unavailability), etc. Based on those reflections the suggestions were: the policy of nation-wide uniform curriculum should be continued; continuous process of curriculum development and improvement should be initiated; Curriculum Dissemination Programme be widely implemented; teacher training that match with curriculum development and requirement; establishing school evaluation programme as an integral part of curriculum development; etc.

An evaluation report of BPEP-I (Shrestha, et. al., 1999) reported that completion of the cycle of nation-wide implementation of the primary education curriculum, new textbooks and teachers' guides, curriculum dissemination, etc. set the stage for unified direction of primary education in Nepal. This report further indicated the salient features of the curriculum: grade-wise terminal objectives; primary-level terminal objectives; subject area-wise scope and sequence; provision of optional subjects, etc.

Education for All National Plan of Action (MOES, 2003a) intended to revise/improve curriculum for these purposes – making school curriculum more practical and relevant to day-to-day life to meet the learning needs of all young people and adults through equitable access to appropriate learning and life skills programs; incorporating progressive gender perspectives in the curriculum and textbooks to achieve sustained gender equity; identifying learning outcomes in the curriculum and revision of the textbooks, etc. Curriculum Development Centre (CDC) has been addressing these aspects in the primary school level curriculum which has been revised in a phased manner since 2005 (CDC, 2006).

### 5.2.3 Medium of Instruction

BPEP-II Master Plan 1997-2002 viewed that relevance of curriculum is also related with the issue of education in the mother tongue. The issue of heterogeneity of community composition has also been indicated which make it difficult on focusing instructional activities to different target groups as well as in the development of curriculum materials in specific mother tongues many of which have been in the form of spoken language only.

Education for All National Plan of Action (MOES, 2003b) stressed that, "in view of the ethnic, social and linguistic diversities one more goal has been considered… to ensure the rights of indigenous people and linguistic minorities to quality basic and primary education through their mother tongue." The Constitution of the Kingdom of Nepal, 1990 recognizes the cultural and linguistic diversity of the country opening ways for providing education in the child's mother tongue (MOES, 2003a). A study conducted by National Indigenous People Foundation (2005) analyzed school level curriculum in the perspective of indigenous people. This study also suggested medium of instruction by the level of schooling – mother tongue at the primary level, Nepali at the lower secondary level and English at the secondary level. The 7$^{th}$ amendment of the Education Act provisioned use of mother tongue in primary classes. CDC has also developed textbooks in various local languages and used them in the schools. However several issues and challenges need to be addressed – multilingual communities, lack of teachers in the local

languages, parental preferences to the languages that carry advantages, lack of scripts in most of the minorities languages, etc. (MOES, 2003c; CERID, 2005).

### 5.2.4 Instructional Materials

Interim evaluation study of PEP by CERID (1989) reported more teaching materials available in the PEP-schools compared to non-PEP schools. The PEP supplementary materials were also found to be useful. This report also pointed shortcomings such as dubiousness of the use of the available materials as books hung in the head-teachers' office or shelves were found accumulating dust on them. There were also problems in using the instructional materials as clear guidelines were missing about 'their exact use, grades at which they were to be used and lesson in the textbooks to which they were to be supplemented'.

BPEP-II Master Plan 1997-2002 viewed that theoretically the new curriculum materials been developed through undergoing all essential steps of programme development through a functional sequence of preparing, testing, modifying and refinement for full scale implementation. Efforts were also in place to make all essential curriculum materials available at the primary school level.

The Thematic Reports (MOES, 2003c) pointed, "Almost all primary schools suffer from acute shortage of supplementary reading materials for the students and the teachers." It was provisioned improvement in curriculum, textbooks and instructional materials to achieve more life-relevant and practical curriculum. Education for All National Plan of Action (MOES, 2003b) stressed that school should have materials produced by CDC to help teachers in curriculum transaction. Textbook, teachers' guide, teacher-made textbooks and other materials in sufficient number were felt essential for effective instruction.

### 5.2.5 Classroom Pedagogy

Interim evaluation study of PEP by CERID (1989) reported that although the PEP teachers made greater use of role playing, demonstration and group work, both the PEP and non-PEP school teachers were observed to have used mainly the direct teaching

methods such as lecture, question and demonstration. The PEP teachers were found preparing lesson plans more compared to the non-PEP teachers, but teachers of both groups were found relying mainly on the textbook for teaching purpose.

Study of the achievement of the students during BPEP phase I has been found low. BPEP-II Master Plan 1997-2002 (MOE, 1997) assumed two possibilities in this regard, "either the new curriculum has not been appropriately delivered, or it has not been delivered to the required extent." The master plan raised the mechanism of curricular transaction in the classroom environment to be one of the major issues. It was emphasized that learning on the part of children becomes meaningful if an integrated approach of delivery is adopted. Rote learning was deemphasized as meaningful child learning does not occur simply as an accumulation of discrete bits and pieces of information or course contents. Learning should be an assimilation of knowledge into the existing cognitive structure to form an integrated whole of new learning.

An evaluation report of BPEP-I (Shrestha, et. al., 1999) reported that the major achievements of BPEP, phase II has been on planning, curriculum and textbook development, teacher training, capacity building at the central level. The major shortfalls has been pointed out as weak preparation and implementation at the Resource Centre and school level. There has been 'too much emphasis on the periphery and rituals and little focus on the child and children's learning and achievement of useful knowledge and skills.' In sum BPEP, phase II has though made several breakthroughs in the primary level education, a visible and significant impact on classroom learning and students achievement levels has not been made. Acharya (2002) also pointed out that in the classroom children are passive listeners, they are overloaded with content and frustrated in unhealthy competition of 'marks'.

Education for All National Plan of Action (MOES, 2003b) outlined six major goals according on the basis of goals set by Dakar forum. In three of these goals 'quality of education' has been mentioned with one of the goal concentrating specifically on the quality aspect and improvement in the classroom teaching learning. 'Concept paper for further support on Basic and Primary Education in Nepal 2004-2009' (MOES, 2002) pointed out a need to deemphasize rote learning and a need to develop further away from

treating the students in classes as homogeneous units and away from rote learning. Core document of EFA (MOES, 2003b) envisioned a classroom by 2015 as:

> The classroom is a stimulating learning environment, deigned to meet the learning need of all students, thus ensuring that each student develops to their full potential. This recognizes that children learn in different ways at different rates and will achieve different levels of attainment. It is a caring environment, in which there is mutual respect between teacher and students, and from student to student. It is a safe and happy environment, to which students look forward to coming each day.
>
> … The curriculum and educational materials are designed so as to ensure active, child centred learning delivered through a wide range of teaching learning methodologies. Teachers evaluate students through a range of formal and informal techniques, using these assessments to identify each student's strengths and weaknesses so that they may adapt their teaching methodology to cater for the needs of students as individuals, and so improve the quality of each student's learning.

Thus EFA documents pointed out emphasis on rote learning and teacher-centred approach as dominant pedagogical practices in the Nepalese schools. Child centred approach, individualized instruction, formative assessments are pointed out to be practices for reforming classroom pedagogical practices. It also necessary education takes all children into its consideration as emphasized by 'Education for All', "Inclusion of cultural, linguistic and other social values of the local communities in the education system." (MOES, 2003b). SSR also accords students' learning as most important aspect and proposes, "… promote independent learning by students being educated under diverse situations… Local curriculum, content and materials will be developed… A child's mother tongue will be employed as the medium of instruction up to grade three… Flexible instructional arrangements will be developed and employed…" (MOES, 2008).

Thus for the qualitative improvement child centred education has been forwarded as vision and intention. Another emerging concern in relation to classroom pedagogy is education for diversity. Nepal is a diverse country with great physiographical, environment, and cultural variations. Topographically Nepal has plain Terai region in South boarding India and highest mountain peak in North boarding China and environment varies from South to North. Population census, 2001 registered 101 different

caste groups, 92 language groups, and 10 religious groups indicating cultural diversity of the country (DOE, 2003). Interim constitution of Nepal respects this diversity with educational provisions such as, "Each community will have right to receive basic education in mother language as provided by the law" (MOES, 2008).

Intention and commitment for the 'quality primary education' is being reiterated from one project/programme to another in Nepal. There is progressive refinement in defining and linking quality education to children's learning. The findings of the studies on the practices in the Nepalese classrooms are not so encouraging. It is still a long way to have improved classroom practices. Findings of the studies on classroom teaching learning are presented in the coming section of this chapter.

### 5.2.6 Assessment Practices

Assessment is one of the major aspects in teaching learning. As such it has been a major area in the educational planning. BPEP-II Master Plan 1997-2002 (MOE, 1997) pointed out heavy backwash effect of examination practices. Quite a chunk of the school-working days are spend for examination related activities and even schools are suspended from teaching in case of external examinations. The schedule of the examination is usually limited to three times testing in a year. The items in the test papers are usually recall type and low content validity and reliability. Formative use of the evaluation is mostly missing. Therefore master plan suggested to prepare manual for teachers on student assessment; conduct training/orientation; establish national achievement norms; emphasis on criterion-referenced test; execute an automatic promotion system in Grade one; continuous internal assessment and individual attention to students; specification of minimum level of achievement; etc. Programme Implementation Plan for 1999-2004 (MOE, 1999a) recognized continuous assessment of student learning achievement as a key element of a quality improvement strategy. Continuous Assessment System (CAS) has been emphasized to form a part of an integrative set of teaching techniques. CAS was piloted during BPEP-II. During EFA also CAS, portfolio maintenance, homework management, establishment of national norms at around A level for all primary students, criterion referenced assessment system, Liberal Promotion Policy, expanding assessment

area to attitudinal and behavioural aspects were given emphasis (MOES, 2003b; MOES, 2003c). The result of piloting of the CAS was not found effective (CDC, 2003). These aspects of improving student assessment has been reiterated in the National Curriculum Framework, i.e. NCF (MOES, 2005) and SSR (MOES, 2008) in addition to developing standardized tests, using assessment result for course improvement, and latest one from SSR is to held public examinations at three levels: national, regional and district.

## 5.3 Studies on Classroom Teaching Learning Practices in Nepalese Primary Level Classrooms

Study on classroom teaching learning practices are very few in Nepal. Educational and Development Service Centre pointed out almost non-existent of the research studies which investigated into the impact of the training on classroom performance of teachers (1997). Educational and Development Service Centre (1999) in its study on national assessment of grade 5 students pointed out that appropriate classroom practices for learning are not taking place in primary schools. The report views that the efforts so far made in improving classroom teaching learning had not been transferred into classroom practices. Studies on transfer of training skills which is presented in the next section below also indicated poor transfer of training skills in the classroom teaching learning. Formative research undertaken by CERID for Ministry of Education covered classroom teaching learning practices as one of its major research area from 2001. Its seventh study on classroom teaching learning has been completed in 2008. Formative research study shows that a slow pace of improvement in the classroom teaching learning has been found and clarity in visioning the classroom pedagogy in terms of child centeredness has been emerging.

Studies related to classroom practices mainly found classroom delivery teacher dominated and emphasis on rote learning. Teacher lecturing, paraphrasing, drill, reading and repeating from textbook, memorizing question/answer were dominant approaches. Another important aspect, the classroom process which is envisioned to be a child centred, was found largely confounded to the whole class teaching and leaving the weaker ones behind. Single language, single session, same material (if used), same method (usually lecture, paraphrase) were the general practices in the classroom delivery. CERID

(2002) pointed out classroom delivery teacher dominated and textbook based and the dominant classroom practices were as following:

- On entering the classroom, teacher asks students for a copy of the textbook if he/she has not carried one with him/her.
- He/she asks students where they were (page number or lesson number) in the sequential order of the lessons or ask students to turn to such and such page number.
- Teacher asks one of the students to read the text or the teacher himself/herself reads it adding his/her own interpretations here and there – mainly in a paraphrasing manner.
- In lower grades chorus repeating of the text is the usual practice and in the upper grades memorization of the question answer is done.
- Translation method is used most in the English language classes.

Formative research study also found a small number of teachers (in about 12% of the classes in 153 observed classes) who involved students actively in teaching learning demonstrated better practices. The classroom practices of the better performing teachers were as following:

- Used real objects (pebbles for multiplication).
- Explained and demonstrated first (protector), then asked one of the students to demonstrate the same and then got the whole class to practice it. Teacher went around and provided feedback individually.
- Used objects in the classroom and around the school in teaching English words rather than by telling their meanings in Nepali.
- Teacher encouraged students to ask questions in English among themselves.

CERID studies (2002 and 2003) reported that the common classroom teaching learning practice was the use of textbook by the teachers more often than curriculum, teacher guide or other curricular materials even though these might be available in the school or could be easily arranged if needed. These studies analyzed the curriculum and teacher guide related to the concerned lesson of the classroom delivery and found that if the teacher would have consulted curriculum and followed the suggestions provided in the

teacher guide, classroom delivery would have been better than the existing ones. But classroom teaching learning practices indicated curriculum and teacher guide being used very less. Better classroom delivery in the cases where curriculum and/or teacher guide were consulted compared to the cases of non-consultation also supports this statement. Analysis of teacher guide and training manual showed that most of the teaching methods suggested in the teacher guide are covered in the training manual and materials suggested in teacher guide are explained in the training manual. Thus, skill learned during training would be supportive in implementing teacher guide effectively in the classroom delivery. However, such transfer was lacking largely in the classroom delivery.

Assessment, another major component of the effective classroom learning, was covered in 2004 formative research study (CERID, 2004). This study assessed classroom delivery with major focus on assessment practices as used to enhancing student's learning. This study found that assessment practices in the form of homework, class work, classroom questions, and periodic examinations were mainly based on low level of cognitive domain. Again emphasis was on rote learning and memorization of answers to the questions to do better in the examination. Assessment fed in rote learning strategy. Even in the schools/classes where Continuous Assessment System (CAS) was piloted, CAS was used as an assessment tool than a tool for continuous support for the learning of the students. Use of assessment to provide feedback to the students to improve learning was done in about one fifth of the observed classes and these were found to be helpful in enhancing students' learning. Evaluation of the CAS piloting by Nyachhyon and Webber (2001) found gaps between the intention of the CAS and its practice at the schools such as 'intention: student's assessment during teaching, no periodical examination – practice: teachers used to conduct end-of-trimester tests in order to justify the allocation of ratings in the portfolio'. To take another example 'intention: teacher applies various informal methods appropriate for CAS – practice: use of formal paper and pencil test'. Thus there were numerous instances in which there were mismatch between what was intended and what in actual practices.

A study by CDC (2003) on the practice of CAS in the pilot districts brings forth several findings which negate with the intention of CAS. For example the study found out that

the schools were conducting the periodic examination as they used before the introduction of the CAS. The achievement indicated in the portfolio was higher compared with the achievement test score of the students that there was no correspondence in the portfolio score and achievement score. The study also pointed out other reasons on the way of effective implementation of the CAS -- overcrowded class; difficulty for the teachers to match lesson goals with that of the students' progress report; maximum use of textbook and less use of other curriculum materials; teachers not using outcome of assessment for improving instruction.

Use of the mother tongue has been emphasized in the classroom to enhance children's learning. Formative research study done by CERID (2005) reported that though use of mother tongue as medium of instruction at the primary level was found to be politically, emotionally, and pedagogically correct, several practical issues emerged at the field. In the three schools and their communities visited, there was general consensus for using mother tongue at the classroom teaching learning for the purpose of supporting children's learning when he/she cannot understand the word, term in Nepali. Generally children's learning and language learning were not differentiated.

Similar situation was found in the classroom where life skills education has been piloted (CERID, 2006). Teacher who received life skill related training and had access to support materials in the project supported districts, there was transfer of training skills in some extent, but a number of gaps were visible. Use of textbook, emphasizing rote learning, teacher domination was still the common classroom process. In Health Education class teachers were also found using children for making comparisons by setting one child as good example and another as bad. This practice was found to be discouraging and harassing the child set as bad example. Another common practice in Health Education class was to list down 'don'ts' than highlighting existing positive behaviours/aspects. Such blaming practices were found not to be child friendly.

A study conducted by Volunteer Service Organization (2005) pointed out fragile morale of the teachers and their low motivation to be major factor in depilated performance of the teacher in the classroom. This study reported that teachers, in general, felt that much was expected of them in the classroom, but that their roles in educational development

had been disregarded by the educational authorities. Teachers in Nepal are found to be working in very difficult situations and with limited resources. The teachers also had the feeling of powerlessness that teachers experience about their inability to create positive learning experiences for their students. There is also severe lack of the instructional materials in the schools which hampered classroom teaching learning.

EFA 2004-2009 sector programme has completed in Nepal and currently School Sector Reform Plan (SSRP) is being implemented (MOE, 2009). 'Joint Evaluation of Nepal´s Education for All 2004-2009 Sector Programme' (Norwegian Agency for Development Cooperation, 2009) found that 'while there have been impressive amounts of teacher training and upgrading there has been an under-estimation of the depth of change required to enable a real transformation in schools' whole approach to children and their learning'. This evaluation report pointed out that:

> ... there was absence of a framework of quality standards and indicators for schools, as well as a lack of systems for tracking student learning outcomes. There remains a lack of key input standards against which to measure achievement. Changes in how students are learning and their learning achievement as well as the factors that affect that achievement are also unknown. DEOs still lack the tools to reward improving schools or target support to those in most need. Meanwhile schools and communities have lacked a framework to help them form a comprehensive vision of an effective school. (p. 79).

For effective classroom teaching learning practices this evaluation report suggested 1) to integrate the concepts of child-friendliness, gender sensitivity and diversity into Nepal's 'vision' of quality education and all quality development strategies; 2) teachers should show an inclusive attitude and incorporate active learning strategies; 3) develop and use school quality standards and indicators and ensure its implementation including the teaching-learning process, child friendliness, gender equity, inclusion and so on; 4) changes in school and classroom processes are not at present recorded. Visits by field staff of the District Education Office and others could be used to gather intelligence on what changes are happening to teaching and learning.

## 5.4 Studies on Transfer of Training Skills in the Classroom in the Nepalese Context

National Centre for Educational Development (NCED) has been providing various educational training including training to the school teachers since its inception in 1993. Studies on the impact of training have pointed out shortcomings related to various aspects such as trainers not being able to become role models for teachers; lack of conducive classroom environment due to large class size and poor facilities; teachers not being competent enough to use student-centred methods properly; shortcomings in the training packages such as lack of activity base, etc. Analysis of the NCED training related reports (CERID, 2003; DOE, 2006b; NCED 1996; 2000a; 2000b; 2003a; 2003b) indicated following aspects:

### 5.4.1 Finding Related to Classroom Delivery

The 7 of the teacher training related studies referenced above, 6 of which are commissioned by NCED or DOE, show positive outcome (good in terms of 70% or more teachers doing so in the classroom) in some of the aspects/skills of the training in terms of the their transfer in the classroom. Mainly there were transfer of training skills in the classroom delivery in the aspects of providing feedback to the students, asking question during classroom delivery, motivating learners, reviewing the lesson, giving homework, assessing/evaluating students' learning, and content knowledge of the teachers. Teachers' performance on some of the important classroom aspects were reported to be at average level such as blackboard use, involving students in the classroom activities, etc. On the other hand teachers' performance were reported to be poor (rated poor when less than one third of the teacher doing these activities) in these activities – lesson planning, construction and use of instructional materials, classroom management for group and pair works, display of the materials in the classroom, assisting slow learners, checking students' work, seating arrangement, etc. When the classroom activities/process are analyzed in terms of their weighatge for effective classroom delivery, then in important aspects teachers' are rated to be poor in these study reports.

### 5.4.2 Reasons for Non-transfer of Training Skills

These studies indicated lack of use of several important skills at the classroom that were covered in the teacher training. The reasons for non-transfer or hindrance for the transfer of the training skills at the classroom identified were inadequate physical facilities and lack of instructional materials as reported in 4 of these reports. Three of the reports pointed out lack of teacher motivation and crowed classroom as hindrance for the transfer of training skills. Heavy workload to the teachers and lack of competence of the teachers were also pointed out as hindrance to the transfer of training skills in the classroom. These reports also pointed out shortcoming in the training itself that affected transfer of training skills in the classroom – lecture-based training package, inadequate coverage of the contents of the training in the 'Training of Trainers', training more theoretical rather than practical, skill not provided properly, confusion arising from coverage of too many techniques/activities in a short duration in the training, etc.

### 5.4.3 Factors for Transfer of Training Skills

There were various factors identified that can affect transfer of training skills in the classroom. Four of these reports identified opportunity for practicing skills during the training to be important for the transfer of training skills in the classroom. Training packages reflecting the real classroom situation of the schools, motivation of the teachers, training package that is activity based, competence of the teachers (which largely depends on the training itself), proper and consistent practice of each skill during training, teacher's positive attitude towards teaching, school environment were identified as factors for the transfer of training skills in the classroom.

### 5.4.4 Suggestions from Studies

To enhance transfer of training skills in the classroom all of these reports emphasize on monitoring and follow-up of the training. Equipping teachers/classrooms with adequate resources and materials; improvement/updating of the training packages; proving teachers sufficient time for practicing the skills during training; support provision to the teachers, addressing classroom situation in the training; etc. have been suggested to ensure transfer

of training skills in the classroom. Thus it is seen that teachers' skills for effective classroom teaching learning has not been achieved to the desired level.

A brief account of the intention of the educational system to improve quality of education and existing classroom teaching learning practices indicates that classroom pedagogy to this end has not been effectively translated. There have been several repeated suggestions to use better teaching methods; involve and engage students in the classroom process; cater needs, interests, ability, individuality, background, etc. of the students; update curriculum; provide required materials; involve stakeholders in the reform process and so on. There might have been several barriers and challenges that impede translation of intention into implementation.

The impact of teacher training has not so far been found to be up to the desired level in classroom practices in Nepal. Until the end of BPEP-I, teacher training had been, "a one-way traffic of unknown emphases and unseen practices" (Shrestha et. al., 1999). BPEP-II master plan (1997-2002) raises concerns over the gap between the content and the intent of the teacher-training curriculum, and the teacher-training endeavours for producing under-trained teachers at large (MOE, 1997). PEDP (1993) pointed out that trained teachers were not inclined to use appropriate teaching skills in the classroom. It has also been reported that there is no significant differences between the classroom delivery practices of the trained and untrained teachers as well as in the achievement of students taught by these two groups of teachers have been pointed out by the studies in Nepal. Studies on the impact of training have pointed out shortcomings related to various aspects such as trainers not being able to become role models for teachers; lack of conducive classroom environment due to large class size and poor facilities (NCED, 2000a); teachers not being competent enough to use student-centred methods properly (NCED, 2000b; NCED, 2002a); shortcomings in the training packages such as lack of activity base (NCED, 2002b). These aspects are to be appropriately addressed to ensure effective transfer of training skills.

## 5.5 Existing Pedagogical Practices in the Nepalese Schools as Observed at the Classroom Level at Present

In this section existing pedagogical practices are analyzed and described based on the observations at the field level. Classroom teaching learning practices were observed in 24 sample schools in 12 districts of Nepal. Classroom teaching learning observation was to compare existing classroom practices with intended pedagogical emphasis. As mentioned in the methodology chapter classroom teaching learning has been observed in naturalistic settings focusing on classroom life as it is practised in the schools. The behaviours of students and teachers were observed and recorded as it occurred during the classroom teaching learning. Category system of recording of the observation has been employed recording whether or not something took place in terms of classroom teaching learning practices. Interaction with the teachers, whose lessons were observed, was also done as follow up to the observation. The findings on classroom pedagogical practices are described in terms of classroom setting (seating arrangement, student/teacher movement, and classroom display) and instructional setting (teacher domain and student domain). Aspects that are covered in the teacher domain are instructional planning by the teacher, delivery of the lesson, learning climate during the lesson, responses required and provided and classroom questioning. Instructional setting related to student domain covers students' involvement, classroom questioning and student responses.

### 5.5.1 Classroom Setting

Classroom setting is one of the major features in effective classroom teaching learning. Seating in the classroom, classroom display and provisions of writing board are covered in the classroom setting.

**5.5.1.1 Seat Arrangement:** Seat arrangement in the classroom itself speaks a lot about possible teaching learning practices such as a classroom in which seat is arranged in a row and column arrangement indicates teacher as a speaker and students as the passive listener. Row and column arrangement is most appropriate when students are required to look at the front most or all the time during the classroom teaching learning activities. On the other hand teachers can engage students in different activities and seating arrangement

can be rearranged by seating of the students without changing placement of the desk and benches or other materials in the classroom for seating. The changes may occur during the lesson as needed. These aspects were guidelines during the classroom teaching learning observation and recording of the classroom setting with respect to the seat arrangement. Aspects observed in case of seat arrangement are presented in table 5.1.

**Table 5.1: Seat arrangement in the classroom**

| Aspect observed | Description | Number of occurrence (n = 48 classrooms) | Percentage |
|---|---|---|---|
| **Seat arrangement style** | Row and column | 40 | 83.3 |
| | Random | 3 | 5.6 |
| | Floor carpeting (group, U or round, random) | 5 | 11.1 |
| **Seat arrangement shape** | 'T' | 37 | 77.8 |
| | 'L' | 3 | 5.6 |
| | Group, U or round | 4 | 8.3 |
| | Random | 4 | 8.3 |
| **Adequacy of space for easy movement in the classroom** | Yes | 9 | 19.4 |
| | No | 29 | 61.2 |
| | Partially | 9 | 19.4 |
| **Use of space by the teacher** | Front only | 25 | 52.8 |
| | Available space within 'T' and 'L' | 9 | 19.4 |
| | Limited use of available space within 'T' and 'L' | 13 | 27.8 |

In the observed classes about 90% were furnished with desks and benches with one classroom having low benches and cushion used for student's seating in the floor. Mostly 3 to 5 students used to share their seat in one set of desk and bench. In 11% of the classes there was carpeting on the floor where students used to work on group or seat in round/'U' shape or even random seating arrangement. In the classroom where desks and benches were arranged in row and column, there was 'T' shape walking space in the front and between the two columns in 78% of classrooms. Whereas, in two of the classrooms, desks and benches were put in one column with walking space on the side making an 'L' shape. Seating arrangement was consistently in row and column or random in 90% of the classrooms and no changes were made from day to day or within the lesson. In this arrangement students always face the front, i.e. towards the teacher who happened to be in the front most of the time during the classroom delivery. Change made in seat

arrangement was observed only in one class out of 144 observed lessons/classes where desks and benches were kept in some distance to make teacher's movement easier between the desks and benches. This change was done on the third day of observation. Otherwise desks and benches were put together with no room between the rows of the desks and benches even in the classrooms where there were enough space for making other types of seat arrangements. (Please see photos 1 to 3).

Regarding the ease of movement for the teacher and students as presented in table 5.1, out of the observed 48 classrooms in 24 schools, in 9 (20%) of them there was adequate room for easy movement for the teacher and students and in equal number to this it was only partially easy for movement. In the rest (61%) of the classrooms there was space just to walk for the students to take their seats or come out of the desk or for the teacher to walk in limited area of the classroom. This was what the classroom space and seat arrangement in the classrooms showed. But the use of available space by the teacher was very limited even in the classrooms which seemed to be spacious. Only in one fifth of the cases were teachers found walking in the available space in 'T' or 'L' shape space. In 28% of cases 'T' or 'L' shape space was found used by the teacher partially. Otherwise they would confine themselves to the front – near the writing board which comes to 53% in terms of usage of the available space by the teacher for walking around the classroom.

Seating arrangement and teacher's movement in the classroom were found to be consistently the same all the time – from lesson to lesson or within the lesson. The slight change observed, as pointed above, was in one case only where the teacher separated desks and benches within the row and walked around to reach student by student individually. In another case the teacher formed two benches as a group for the small group work, but there was no rearrangement of desks/benches made or seating arrangement of the students changed for the group work. It was rather a pseudo group formation where students in the front turned their head back for a while to talk with the students back to them.

**Photo 1**

**'T' shape walking space in the front and between the two columns.**


**Photo 2**

**'L' shape walking space in one side of the classroom wall with one column of benches for the students to sit.**

**Photo 3**

**Floor carpeting for seating in the classroom for the children at the lower grade in a primary school.**

This was uncomfortable for the front row students and it made sharing difficult in the group. Teachers' perception on seating arrangement was largely unfounded that they go with whatever seat arrangement was in the place as this was fixed and permanent and they were not supposed to change it themselves. They did not perceive that seat can be rearranged differently from lesson to lesson and within lesson for effective teaching learning.

**5.5.1.2 Classroom Display:** Display in the classroom walls is another aspect related to classroom setting. Classroom display is a valuable teaching learning resource. Its effective use can create an atmosphere that can encourage students, link students' experiences to the lesson, cater varied learning styles of the students. A well managed classroom display can create conducive environment for better learning for the students and also communicate the progress of the lesson in the class. Practices and effects of the classroom displays in the classes were covered in this study and presented in table 5.2.

**Table 5.2: Displays in the classroom**

| Aspect observed | Description | Number of occurrence | Percentage |
|---|---|---|---|
| **Status of displays (n = 48 classrooms)** | Display | 21 | 44.4 |
| | No display | 27 | 55.6 |
| **Distribution of display (n = 48 classrooms)** | None | 27 | 55.6 |
| | Less than 5 | 12 | 25.0 |
| | 6 to 10 | 4 | 8.3 |
| | 11 to 20 | 1 | 2.8 |
| | 21 to 30 | 1 | 2.8 |
| | 31 to 40 | 3 | 5.6 |
| **Type of displays (n = 250 displays)** | Students' works | 216 | 86.2 |
| | Bought from market | 14 | 5.7 |
| | Painted on the classroom wall | 8 | 3.3 |
| | Teacher made | 12 | 4.8 |
| **Condition of displays (n = 250 displays)** | Old and not usable | 105 | 41.9 |
| | Usable condition | 145 | 58.1 |

Out of 48 classrooms observed, there were not any kinds of displays on the walls of more than half (56%) of the classrooms. The number of the displays in the classroom in the 21 (44%) classrooms where there were some kind of displays, ranged from 2 to 40 displays.

The distribution of number of displays in the classrooms is presented in the figure 5.1. The number of displays in the 21 classrooms was 250 in total. Most (86%) of the classroom displays were works of the students (Please see figure 5.2 for details). Rest were either bought from the market (6%) or made by the teachers (5%). The displays were of various kinds, such as:

- Quotations (painted or pasted)
- Charts
- Drawing (usually copied from the textbook)
- Cuttings
- Text from the textbook (written in large letter)
- Poems by students
- Greetings (New Year, festival, etc.)
- Classroom rules
- Calendar
- Wall clock
- Posters
- Pamphlets
- Pictures (Scientists, famous people, leaders, poets, scenery, etc.)
- Map
- Newspaper cuttings
- Cut out pictures
- Etc.

Considering the condition of displays in 3 of the classrooms, the displays were all old and not usable for the classroom instruction. In total 145 (58%) of the classroom displays were in usable condition. Out of 144 lessons observed during classroom teaching learning, in only one of the lessons was classroom display used. That was also the only occasion in which student's work was used during classroom teaching learning. Otherwise, classroom displays were not used during classroom teaching learning in any of the observed lessons. (Examples of classroom display and their conditions are provided in the pictures 4 to 6).

**Figure 5.1: Number of classroom displays**

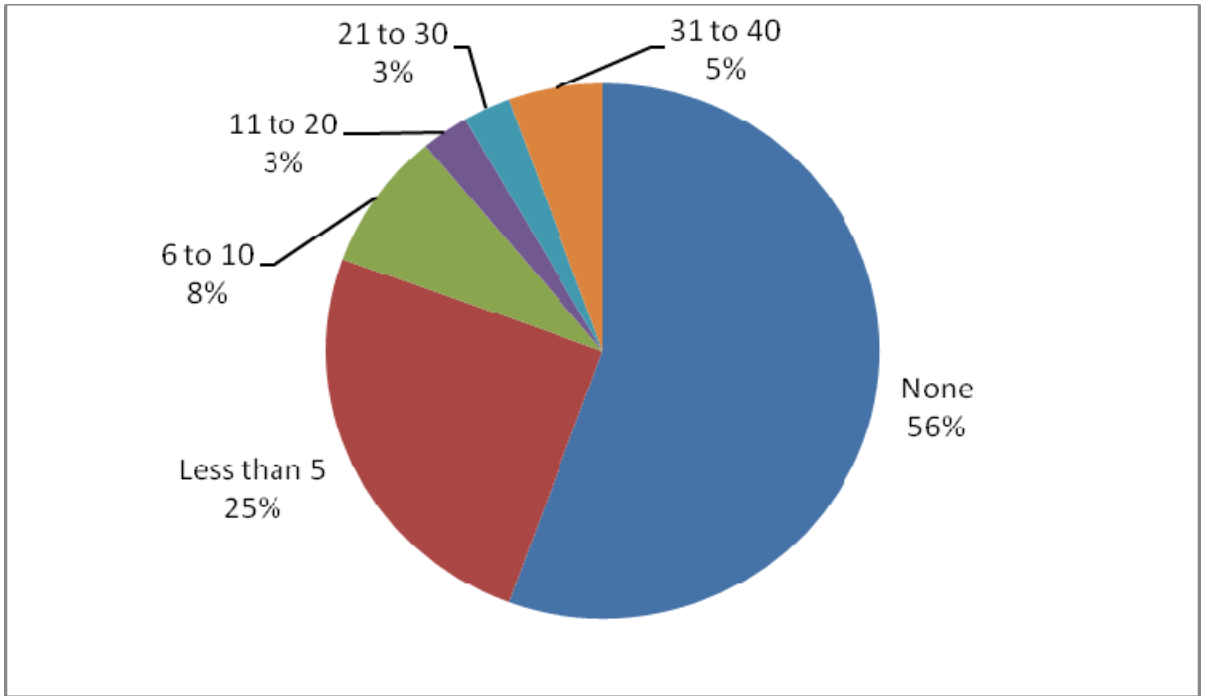
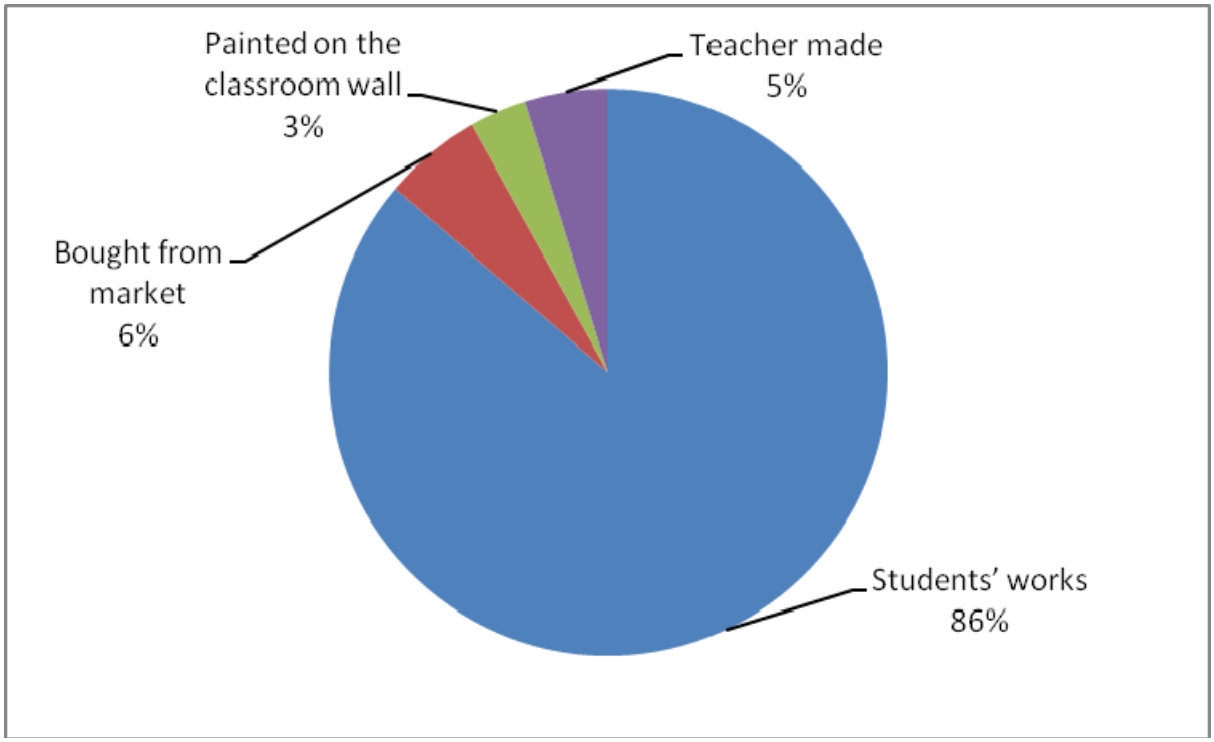
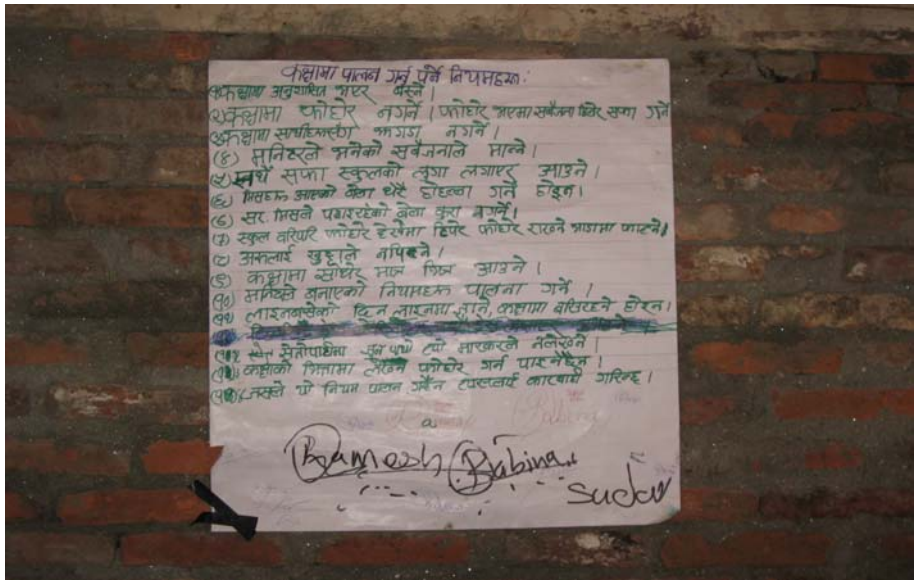



**Figure 5.2: Types of classroom displays**






**Photos 4 – 6**

**show sample of types of classroom displays and their conditions in terms of usability**

It was also attempted to find out how long a classroom display would remain in the classroom wall by asking about it to the teachers. Most of the classroom displays used to enjoy a long lifetime – usually duration of one year session period. With the new school session, classroom display would start a fresh. Where there were quotations painted or pasted by the school/teacher, these were supposed to remain until the next repainting/washing by the school administration. Only in cases of 4 classrooms, there were more displays added during the observation period. In only one case was the material prepared before the lesson. During the observation period not a single display was found to have been taken out from the classroom wall even though in some cases classroom wall were filled up and had started to look clumsy and some old displays were torn or discoloured or faded. Like the desk and benches in the class, classroom displays also become fixed, permanent and unchanging in most of the cases and classes. These were not consciously planned by the teachers to maximize classroom teaching learning.

Teachers were asked about their views on classroom display and their use during classroom teaching learning activities. Their responses were mixed, some responses were positive and some felt it was a barrier as presented in the following section. Figures in the parenthesis after the response indicate number of respondents and in some instances multiple responses.

*Positive responses*

- Teachers encourage students to prepare materials based on the lesson so that these could be displayed in the classroom wall (4)
- Teachers ask students to prepare materials, (but do not post them in the classroom wall) (3)
- Teachers assign material preparation as project to the students (but due to time constraint it is not practiced frequently) (1)
- Teachers often use local resources and drawing as instructional materials (1)
- Have displays in the classroom and these are helpful (12)
- When interested students prepare, ask them to put on the classroom wall (4)
- Prepare useful one and put on the classroom wall (7).

*Others responses*

- There is no practice to prepare and post the display materials (7)
- There is not enough time to prepare materials (6)
- Used to prepare materials in the past, but do not do so now (5)
- Do not post prepared materials due to fear of cheating in the examination (3)
- New building so no displays on the classroom wall (1)
- Lack of resources and budget (4)
- Students not interested to prepare (2).

Above responses indicates mixed reactions from the teachers about the use of classroom displays. Encouraging students to prepare materials for display is very positive, but utilizing them for effective classroom delivery is less so.

As indicated above classroom displays were mostly display of students' works. It was positive that the decorations or displays for the walls were primarily from children's work. Such display of students' work would have been a positive aspect for improving classroom teaching learning and also a cost effective way of developing instructional materials. However, practice of preparing the material after the lesson was over, restricted effective use of the classroom displays. Common practices of preparation and use of the classroom display were depicted as following as expressed by teachers during follow-up interview:

- Teachers ask students to prepare chart, draw picture or write narratives related to the lesson after lesson was covered in the class. The assignment was mostly as homework for the students. Teachers select some of the good works and put them on the classroom wall. As the lesson related to the display material was already over, there was no need to refer the display any more. This was the main reason for displays not having been used during classroom teaching learning. Thus classroom displays were not considered as teaching learning resources, but only a decorative material to make classroom beautiful/colourful. Instructional value of the display was not much in the classrooms even where there were some kinds of the displays.

- Another practice found in the classroom display was that once materials were put on the wall these were rarely changed. As classroom display was taken for decorative purpose the displays remain posted and did not change with the lessons to be taught. Classroom display and students' works are not yet considered as learning resources or valued as motivational factor to the students. It would have been instructionally correct if the teachers would have selected children's work for display not on the correctness or the neatness or nice look, but to represent individual's best effort and hard work (United Nation Children's Fund, i.e. UNICEF, 2003).

**5.5.1.3 Writing Board:** Writing board is one martial that could be available and used in the classroom. Availability, condition and use of writing board as found during classroom teaching learning observation is presented in table 5.3. Blackboard positioned on front wall of the classroom or wooden ones were found in 95% of the classrooms whereas there was no writing board in 5% of the classrooms. In case of usable condition of the blackboards, it was usable in only 67% of classrooms, defaced/deteriorating in 17% and unusable in 11% of classrooms. In 5 of the cases spatial location of the blackboards were not appropriate as these were so high for the students to reach at when they were asked to write on the blackboard by the teacher. In case of use of blackboards, in 35% of lessons it was not used during classroom teaching learning whereas it was used by teacher only in 54% of lessons and by both teacher and students in 11% of the lessons.

**Table 5.3: Writing board in the classroom**

| Aspect observed | Description | Number of occurrence | Percentage |
|---|---|---|---|
| **Provision (n = 48 classrooms)** | Not available | 3 | 5.6 |
| | Available | 45 | 94.4 |
| **Condition (n = 48 classrooms)** | Not available | 3 | 5.6 |
| | Usable | 32 | 66.7 |
| | Defaced | 8 | 16.7 |
| | Unusable | 5 | 11.1 |
| **Use of writing board (n = 144 lessons)** | Not used | 51 | 35.2 |
| | Used by teacher only | 77 | 53.7 |
| | Used both by teacher and students | 16 | 11.1 |

### 5.5.2 Instructional Setting

The major objective of any educational institution like a school is to promote student's learning which in turn is determined to a large extent by the instructional environment prevailing in the institution. The instructional environment should be appropriately arranged to create conducive conditions to promote teacher-student and student-student interactions which ultimately facilitate in improved teaching learning in the classroom. Instructional environment in this context is analyzed in terms of teacher domain and student domain as well as teacher-student and student-student interactions in an instructional setting.

**5.5.2.1 Instructional Setting Related to Teacher Domain:** Instructional setting related to teacher domain covers 1) instructional planning by the teacher, 2) delivery of the lesson, 3) learning environment during the lesson, and 4) classroom questioning. These aspects are presented in this section.

**1) Instructional Planning:** Teacher's plan to deliver or facilitate day's lesson is important for effective classroom teaching learning. Teacher's lesson plan is expected to be in written form. However, written lesson plan was not found in any of the 144 observed lessons during classroom teaching learning in this study. Practice of lesson planning by the teachers is presented in the table 5.4.

**Table 5.4: Practice of lesson planning by the teachers**

| Aspect observed | Description | Number of occurrence (n = 144 lessons) | Percentage |
|---|---|---|---|
| **Written lesson plans** | Yes | 0 | 0.0 |
| | No | 144 | 100.0 |
| **Instructional delivery** | Smooth and confident | 97 | 67.6 |
| | Confused, not confident | 47 | 32.4 |

Even if there was no written plans for the day's lesson, in about 68% of the lessons delivered by the teachers was found being conducted smoothly and in case of the remaining 32% of the lessons there were neither written lesson plan for the day's lesson

nor was the lesson delivered confidently by the teacher. In three lessons there were confusions on what to teach and what to achieve in the lesson. For example,

Teacher: What do you want to study today?
Few students: About SAARC countries.
Teacher: *(Thinks for a while)* Let us study about 'natural property'..... *(because that was the lesson in the sequence)*.

Another example,
Teacher: Where *(in the lesson/textbook)* were we last week?
Students: *(Students tell different page numbers or paragraphs)*
Teacher: Well let us read from page 51.

In 5 of the lessons teachers finished the lesson before the bell and there was still some more time left. Then the teacher either repeated some parts of the lesson or asked questions to the students on the lesson until the bell rang. These filler activities were more time killing activities at their best.

Most (70%) of the teachers informed that even though they did not write down their plan for the lesson, they used to have mental preparations for the lesson. The reasons for not having a written plan, but only mental preparations were as follows (multiple responses and number after responses in parentheses indicates number of responses):

- No need of a written lesson plan as they were teaching same content for years and they were used to it (11)
- Due to heavy workload (15)
- Additional responsibilities given (3)
- Base classroom teaching learning in the textbook *(meaning that textbook content guides the classroom delivery)* (12)
- It is the common practice (7).

Teachers also informed that they used to prepare short/personal notes (2) or annual/monthly plan in their diary (6), but use of these plans were not seen to have been used during classroom delivery at the time of observation.

**2) Delivery of the Lesson:** First of all it is the students who should be motivated so that they take interest in lesson. It is good to find out where students are in relation to the lesson and start from that point as entry behaviour. Linking with the experiences of the students, cater their interest and expectation are valuable starting points for the lesson. During lesson observation it was tried to depict teachers' practices in starting the lesson. In majority 83 (57%) of the lessons, teachers were found starting the lesson with the bell without doing any pre-lesson activities or doing any warm-up activities. Practices of the teachers in starting the lesson is presented in the figure 5.3.

Delivery of the content was the focus from the start of the lesson in majority of the observed classes. Even in 5% of the classes, time was spent on checking homework. In 13% of the classes teachers repeated important points from previous lesson and then started new lesson without any pre-lesson activities. Whereas in 6% of the classes teacher asked questions on the previous lesson and then only started the new lesson, but adequate linkages between previous lesson and day's lesson was missing. Discussion or activities to introduce day's lesson was done in 17% of the classes which are appropriate pre-lesson activities.

**3) Learning Climate During the Lesson:** In a classroom all are learners to learn from one another. This learning community can foster when learning incidences and communication crisscross – teacher to student, student to teacher and student to student during the classroom teaching learning activities. It was attempted to depict learning climate during the lesson. In this regard following aspects were observed and analyzed,

- Instructional methods employed
- Type of responses required by the teacher
- Approach to the curriculum content
- Crosscutting issues in the classroom
- Facilitation of students' participation
- Inclusiveness in the learning environment
- Time management for the learning activities

**Figure 5.3: Ways of starting the lesson by the teachers in percentage (n = 144 lessons)**

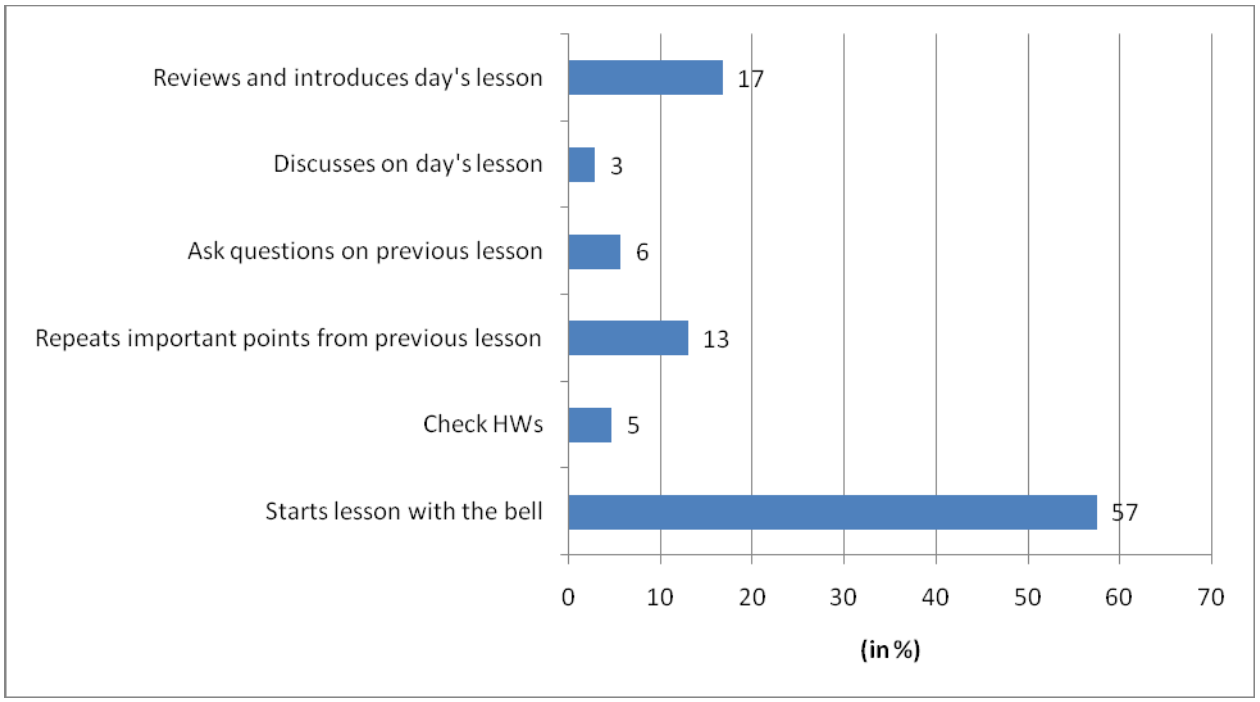
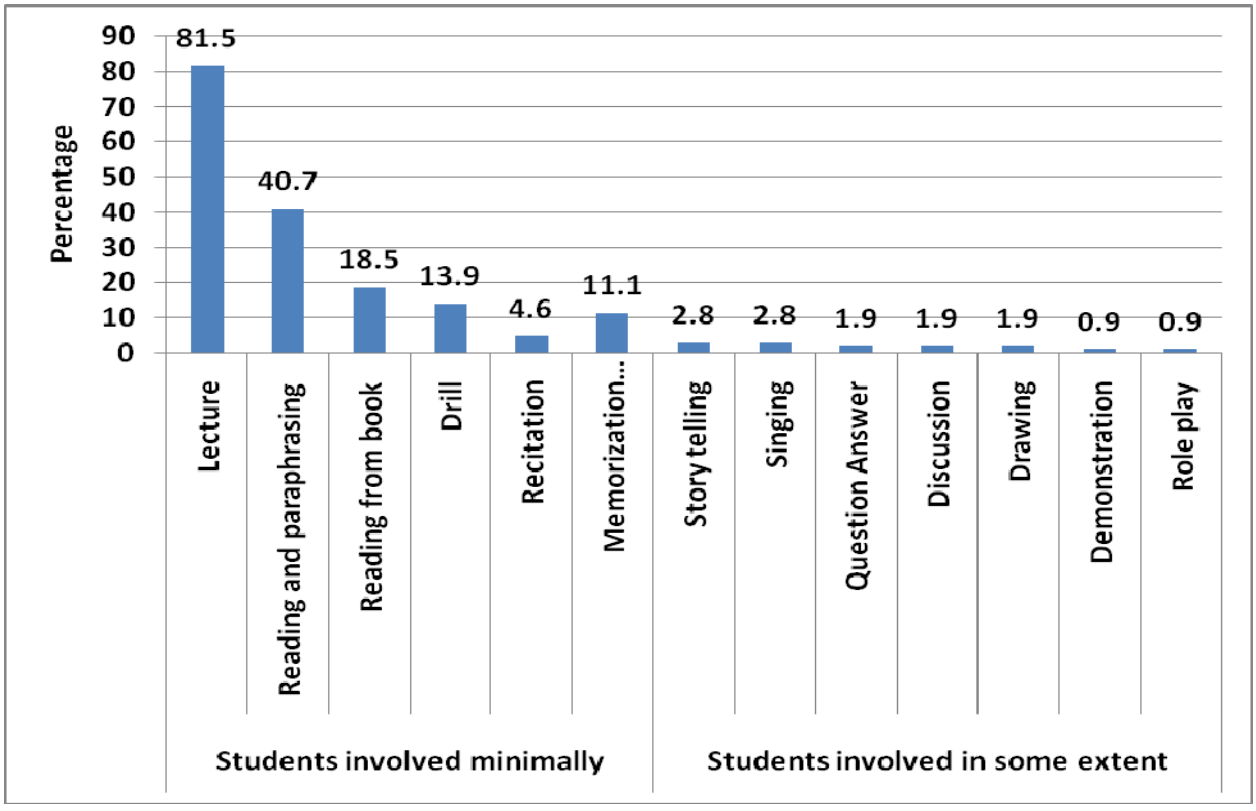



**Figure 5.4: Ways of involving students by the teachers in percentage (n = 144 lessons)**



*Instructional methods employed.* During classroom observation main instructional methods used and communication events/episodes were noted down. All of the observed classes were consistently in part or whole of the lesson, lecture style from teacher to students with other events/episodes of shorter duration in between. Following teaching methods were found used during classroom teaching learning (multiple methods as well in observed 144 lessons),

**Table 5.5: Teaching methods used in a lesson/class (n=144)**

| Aspect observed | Description | Number of occurrence | Percentage |
|---|---|---|---|
| **Students involved minimally** | Lecture | 117 | 81.5 |
| | Reading and paraphrasing | 59 | 40.7 |
| | Reading from book | 27 | 18.5 |
| | Drill | 20 | 13.9 |
| | Recitation | 7 | 4.6 |
| | Memorization (multiplication table, spelling, word meaning, etc.) | 16 | 11.1 |
| **Students involved in some extent** | Story telling | 4 | 2.8 |
| | Singing | 4 | 2.8 |
| | Question Answer | 3 | 1.9 |
| | Discussion | 3 | 1.9 |
| | Drawing | 3 | 1.9 |
| | Demonstration | 1 | 0.9 |
| | Role play | 1 | 0.9 |

Teaching methods employed in a lesson/class was mainly categorized into the methods in which students are involved less and teacher dominance was prominent and methods in which there was opportunity for the students to be engaged during classroom teaching learning activities. Teacher oriented methods were found mostly used in classroom teaching learning (please see figure 5.4 for details). The methods used by the teachers on the basis of their occurrence were lecture (82%), reading and paraphrasing (41%), reading from book (19%), drill (14%), asked to rote memorize (11%) and recitation (5%). Classroom teaching learning methods in which students had opportunity to be involved in the lesson was sparsely used by the teachers. A small percentage of the methods used, which were helpful to engage the students with their participation were storytelling and

singing (3% each), question answer, discussion and drawing (2% each) and demonstration and role play (1% each).

Communication episodes in terms of teacher-student, student-teacher and student-student were also noted down in the class. Altogether 522 communication episodes in 144 lessons/classes were noted down. Communication within the classroom during a lesson was mainly dominated by the teacher which comes to 86%. Teacher dominance was on lecturing and addressing now and then to the students such as

- Turn (specific page, chapter) of the book
- Submit your homework
- Open your book
- Copy in your notebook
- Have you read (memorized) the lesson
- Don't make noise/keep silent
- Read (from the book – page number/lesson paragraph)
- Recite from rote *(without looking on the book)*
- Listen carefully
- Do you understand/Is it clear to you
- If you have question – ask
- Etc.

Teacher student communication which was 86% of the total communication episodes (classroom questioning not included in this category) in the classrooms was mainly for lecturing and managing the class as examples listed above.

About 14% of the classroom communications was directed from students to teacher. Student initiated communication to the teachers were mainly for

- clarification on the content matter covered in the lesson
- repeat the information/text for them to note down
- read out what was written on the blackboard *(when student not able to make out what was written)*
- additional information

- clarification on class work, homework given
- clarification on the given instruction
- pointing out teacher's mistakes such as wrong spelling written on the board
- complain about other friends
- asking for permission – can I go to the toilet, etc.

Student initiated communication, related to the lesson, was mainly for the supply of factual information from the teacher. Only in one class was there communication from student to student (asking reason for the answer) and in one class teacher redirected student query to another student. Teachers either lecture (86%) or paraphrase (41%) during classroom delivery. Teacher either read out from textbook by himself/herself or made the student read out from the book (shown in the photographs 7-9) and the teacher would then add some interpretation and explanation or just repeat the content again. This was done by the teachers most of the time.

While reading from the book is going on, students would be reading or following the text read aloud by a lead student or teacher or some of them might be distracted and doing something else or bored as could be seen in the photographs.

*Type of responses required by the teacher.* Emphasis should be more on the learning process rather than recitation of the content on the basis of memorization. In this regard classroom observation and analysis was emphasized on the types of the responses that teacher's communication or questions required in the classroom teaching learning.

Responses required by the teachers were mostly formal correct responses, usually a standard one that every student should rote memorize and be able to reproduce when asked or in the examination paper. Those teachers considered better usually provided tips for the answer or some of them even provided notes and emphasized on standard answers to specific types of questions for the students to memorize and reproduce in the examination to get better marks. As test/examination correspond with what was taught by the teacher and what was asked in the examination questions would be indicator of a good teacher and would be respected by the students.

**Photos 7 – 10 show classroom teaching learning in which reading from the book is used maximally.**

As examination emphasize content matters reproduction, there was emphasize on rote memorization. Single correct answer or convergent questions were emphasized. Out of 144 observed classes only in 6 classes, teachers had asked divergent questions. Out of these only 3 teachers encouraged and accepted divergent answers. Two of the examples are presented here.

> Teacher question: In which region (mountain, hill or Terai/plain) would you like to live in? Why?
> Students opted different regions citing different reasons for their choices which were – good climate, healthy environment, more food, like hot/cold climate, family members there, etc.
> Teacher accepted different answers and also encouraged students to provide different reasons for their choices.

> Which of the festival do you like the most and explain why?
> Teacher occasionally waited for the students to complete their answers. Most of the time she interrupted and continued to explain herself a standard answer to the question. Though the question was divergent, diverse answers were not accepted.

During the follow-up interview, these teachers were asked about the divergent questions they had asked in the class. They seemed not to be aware of having asked divergent questions. It was not consciously planned or asked. It just happened.

*Approach to the curriculum content.* Teachers need to adopt different approaches for the classroom delivery according to the nature of the lesson. Within the lesson as well different activities and approaches might be required. Mostly lecture or paraphrasing followed by questions and answers in the whole class were the dominant approaches. Only in 8 of the classes were students found to have been involved in better and meaningful ways to work or share in the class,

- Group works (4)
- Guessing the lesson of the day (1)
- Practical/experiment (3)
- Singing (3)
- Drawing (2)

During the interview these teachers were asked about the above techniques they had used in the class. From their response it was evident that they had not used group work in a planned way to promote cooperative learning. Teachers using singing or drawing opined that these made students enjoy the lesson and they become interested in learning.

*Crosscutting issues in the classroom.* Teachers were mostly not found to relate aspects or issues or information from other sources or lessons or subjects with the day's lesson. Crosscutting issues were not consciously brought in by the teacher during classroom delivery. Only in 7 lessons/classes teachers were found to relate day's lesson with other subjects – mostly relating day's content to the practical use in day to day life in health and social context.

*Facilitation of students' participation.* Students should be provided opportunity to participate in the classroom teaching learning activities. They should be provided opportunity to interact among themselves as well. In the classroom mostly students participate in the teaching learning activities classroom as a whole and teacher also treat the class as a unit. During class work or verbally answering teacher's question students were involved individually as well. Otherwise out of 144 classes observed in only 4 classes there were events when students were required to work in small group. Students' were involved in the classroom teaching learning by the teachers asking them to read from the book or asking them question to answer or inviting students to ask teacher if anything was not clear from the day's lesson or do some class work. This meant that when teacher let more students read aloud for the class or ask questions to more students, then students' involvement in the classroom teaching learning would be higher. Otherwise there were no other classroom activities to involve students' in the classroom teaching learning activities.

*Inclusiveness in the learning environment.* Involvement of the students in the classroom process was mainly when teachers asked them question to answer (data on the number of the questions is provided in coming sections). When more students were asked questions, more students had chance to participate. During the classroom teaching learning distracted or detached students were also found. In these cases teachers used to

command the students to maintain silence. Teachers were not found to do anything to involve students if any of them was not attentive or disinterested in the lesson. There was also lack of classroom activities to involve more of the students.

*Time management for the learning activities.* Time management aspect were not easily discernible during classroom teaching learning observations due to these reasons: a) there was no written plan to compare teacher time management, b) teachers did not mention time for activities to the students, and c) teachers mostly either used lecture or paraphrasing and in these methods most of the time is taken by the teacher and there would be little room for time management. During classroom teaching learning observation only one teacher was found to have provided timed task to the students to complete it.

**4) Classroom Questioning:** Classroom questions by the teachers were analyzed in terms of numbers of questions, levels of the questions asked, encouragement to the students and facilitation for the students' response. Recording of the questions asked in the classroom teaching learning process was done following these aspects,

- If same question is repeated by the teacher to two or more students that question was recorded as one question only.
- If the same question was asked with slight variation, then that question was also recorded as one question only such as 'why do you like .....?'; 'spell .....'; 'tell/recite multiplication table of .....', 'tell the meaning of the word .....', etc.
- Give example of .... ?.... Give another example? ..... Add more examples..... These were also recorded as one question only.
- Can you make sound of a cat/ a dog/ a goat.... These were also recorded as one question only.

If each of the questions asked were counted separately, then it would come to more than 45 questions in a lesson as well. But when repeated or similar questions were counted as one question only then maximum numbers of questions asked in a lesson comes to 20 during classroom teaching learning. In three of the classes there were no question asked either by the teacher or by the students.

Teachers were found to ask 9 questions on an average during one class. Out of 9 the questions asked 8 were at knowledge/recall level and 1 at the comprehension level according to the Bloom's taxonomy of educational objectives. Some of the examples of the type of the questions asked in the class are presented below,

*Knowledge level questions*

- What is the definition of work?
- What is the unit of energy?
- How many oceans are there in the earth? Tell their names.
- What is the full form of 'SAARC'?
- What are the organs of UN?
- Tell the multiplication table of ...
- Spell the word ...
- What is the meaning of the word ...
- When was (event, person related dates ...
- Recite the (poem, story, paragraph, lesson) from memory ...

*Comprehension level questions*

- Give examples of types of simple machines.
- What is the difference between noun and pronoun?
- Why 'school' is considered an example of public property?
- Use words in your own sentence...

Most of the questions asked by the teachers were at the lowest level of recall that students could immediately answer if they knew. In these cases encouragement or providing wait time was not too relevant. When the questions were more difficult or answers required a difficult content to memorize, encouragement and wait time were found to be useful. In this respect 12 of the teachers were found encouraging students to express which come to 1.5 episodes on an average per lesson/class. Similarly teachers were found facilitating students to responded by providing them required time in 2 episodes on an average whereas teachers were found interrupting students in 0.25 episodes on an average.

**5.5.2.2 Instructional Setting Related to Student Domain:** Instructional setting related to student domain covers classroom questioning and student responses. These aspects are described in this section. The dominant pattern in the classroom questioning was teacher asking questions and students answering them. Questions were mostly asked to the class as a whole and answer would come in chorus from the class. In such practice it was difficult to note down number of episodes that questions were asked and answered either correctly or wrongly.

On an average, students correctly answered 6 Knowledge level questions and 0.7 Comprehension level questions as against 8 Knowledge level questions and 1 Comprehension level question asked by the teachers on an average.

Besides teacher's questions to the students, questions by the students to the teacher or from one student to another student were also noted down. Only in 9 classes (6%) students asked question to the teacher. Among these episodes also mostly students asked question to the teacher when teacher told student to ask question if they were not clear about any of the contents of the lesson. Even asking question among the students themselves to one another was not in practice. Only in one class 2 questions were asked by a student to other students during classroom teaching learning observation in the study.

The quality of students' learning was found grossly found dictated by the classroom teaching learning practices. Most of the learning time of students, in the classroom and home, was utilized in following activities – reading from the textbook, answering the questions in the exercises in the textbook, practicing the important questions and answers, memorization of the content matter (letters, numbers, tables, list, dates, names, word meaning, etc.).

## 5.6 Perception on the Pedagogical Practices in the Nepalese Schools

Educationist, experts and concerned persons (head teachers, teachers and students of the sample schools) were asked about existing pedagogical aspects. School level stakeholders – head teachers/principles, School Management Committee, Parent Teacher Association, parents, teachers and students were asked about their perception on quality of the existing

classroom teaching learning process and their suggestions for improvement. These aspects are presented in this section.

### 5.6.1 Physical Infrastructure

All the schools visited have school building, school compound and separate classroom for each grade. But the quality of the school buildings and classrooms were different among the schools. In 10 of the schools there were dirty and unwashed walls, old building and temporary compound. In these schools classrooms were also not well lighted and ventilated. In these schools teachers were not satisfied with the physical infrastructure of the schools and most of them stated physical infrastructure was not conducive to classroom teaching learning.

### 5.6.2 Curriculum

Educationist and experts pointed out that though national level curriculum, textbook and curricular materials were common in Nepalese education system for decades, these have become rigid and not revised to suit modern needs. They opined curriculum should be flexible, updated and reflect changing needs. Head teachers and teachers viewed provision of curriculum, textbook and curricular materials were good, but pointed out delay of textbook distribution from time to time and lack of instructional materials. Stakeholders also pointed out use of textbook dominant and sometimes the only materials used in classroom teaching learning.

### 5.6.3 Medium of Instruction

Growing trend in the Nepalese primary schools lays emphasis in English language as medium of instruction. Public schools are moving towards English language as medium of instruction. Five of the sample schools have already started English language as medium of instruction and in other schools Nepali language was the medium of instruction. Even where mother tongues of most of the students were other than Nepali language, there was emphasis in Nepali language as medium of instruction. Head teachers, teachers and school level stakeholders opined that as English language and Nepali language were rewarding in later life, learning these languages would be

beneficial. *In this respect there was lack of a differentiation between language learning and language to support learning.*

### 5.6.4 Instructional Materials

All the respondents valued instructional materials highly for effective teaching learning. But in most of the classes observed, there were very few uses of the instructional materials. Head teachers and teachers pointed out lack of budget, lack of time and even lack of skills in preparing the materials as reason for low incidents of preparation and use of instructional materials in the classroom teaching learning. Regarding classroom display and its use responses of the teachers indicated that these were mainly used for decorative purpose rather than as a resource for instructional purpose.

### 5.6.5 Classroom Pedagogy

There was general agreement that classroom teaching learning was lecture oriented, rote learning dominant and emphasis on memorization. Teachers were protective of this state of classroom teaching learning as:

- Crowded class
- More periods to teach
- No time for preparation
- Lack of home support to the students
- Uninterested students
- Lack of instructional materials,
- Etc.

There were a number of such reasons provided for low quality of classroom teaching learning practices and non-transfer of training skills. There was agreement among the school level stakeholders that classroom teaching learning should be improved and emphasis should be upon child friendly approaches.

### 5.6.6 Assessment Practices

There were practices of periodic and paper and pencil tests in the schools. Examination was dominating factors in the school practices. There was realization among the school level stakeholders that examination and marks are accorded undue importance and opinion was to improve assessment practices towards continuous assessment and making assessment child friendly as well.

### 5.6.7 Observations of the Respondents

Head teacher/Principal, School Management Committee, Parent Teacher Association and Parents group perceived classroom teaching learning mostly to be lecture oriented and teaching learning based on the textbook. Besides they commented,

- Students were not provided the opportunity to participate in classroom teaching learning activities
- There is lack of group discussion in the classroom
- Teachers do not prepare lesson plans which could be helpful in improving classroom teaching learning
- Result in the examination is more on focus (cramming for the examination)
- Rote learning and memorization is emphasized
- Teachers dominate the class and students are passive
- Teachers do not apply skills learned in the training.

They further expressed following aspects coming in the way of better teaching learning practices in the classroom,

- Heavy work load for the teachers
- High students teacher ratio
- Engagement of teachers in other activities – politics, tuition classes, own business, etc.
- Lack of accountability and commitment.

School level stakeholders were also concerned about the need for increasing students involvement in the classroom teaching learning activities; making them active and fruitful

learning rather than rote memorization and examination-oriented teaching. They were also concerned about teachers' workload and inadequate facilities in the classroom.

Whereas teachers expressed that they basically used lecture method in classroom teaching learning activities and textbook was the main guide in that process. Besides few of them said they also used following methods in their classes,

- Practical
- Demonstration
- Group discussion
- Classroom questions
- Involve students in the classroom teaching learning as much as possible.

Teachers however pointed out following aspects coming in the way of better teaching learning practices in the classroom,

- Crowded class (high number of students in the class)
- Heavy work load for the teachers
- Lack of teaching materials
- Lack of orientation to the teachers on the changed curriculum
- Heavy content load in the curriculum
- Pressure to do better in the examination
- Lack of training to the teachers
- Lack of modern facilities – audio-visuals, multimedia, etc.
- Lack of library, laboratory facilities
- Poor infrastructure in the school and classroom.

Teachers seem to feel several barriers that make it difficult to make the classroom teaching learning interactive, involve students and make them active. Crowded class, content load and lack of facilities were the major factors teachers felt for resorting to lecturing.

Students expressed that the classroom teaching learning they like most is the ones in which they have more chances to be involved. Though students were not able to express

appropriately what classroom teaching learning should be like, they expressed what they like,

- More practical
- Information from out sources (rather than confining to the textbook only)
- More involvement of students in the classroom activities
- Extra-curricular activities
- Field visits/tours
- Library and laboratory facilities.

### 5.6.8 Suggestions from the Respondents

The difficulties and hurdles pointed out by the school level stakeholders in the way of better classroom teaching learning practices are also areas for improvement. Specifically they suggested,

- Emphasize on student focused classroom teaching learning activities
- Teaching for examination should be discouraged
- Improve assessment practices to support learning
- Learning should be transformed into application
- More practical works
- Training/orientation on use of local materials in classroom teaching learning
- Clarity on course and curriculum required
- Promote student teacher interaction and cooperation
- Change and improve in the curriculum continuously
- Updated Teacher's Guidebook and provide required teaching materials
- Increased teacher competency
- Refresher courses to the teacher from time to time
- Demonstration of better teaching methods to the teachers
- Focus on students' learning, not the textbook or course.

They also added these suggestions:

- Limit class size to 35-40 students per class
- Less teacher workload (manageable workload to the teachers)

- Competent and qualified teachers only
- Teacher evaluation and incentives
- Improve school and classroom facilities
- Teacher's accountability.

Thus the main focus of the school level stakeholders is to make classroom teaching learning more interactive with active involvement of the students. However they also feel a number of things need to be improved at both the classroom and personal level to improve classroom teaching learning practices.

# CHAPTER VI

# A PROPOSAL FOR IMPROVING PEDAGOGICAL PRACTICES AT THE PRIMARY LEVEL IN NEPALESE SCHOOLS

This chapter discusses a proposal suggesting possible ways to improve pedagogical practices at the primary level in Nepalese schools. In this process concepts, ideas and policy statements from documents of Ministry (Ministry of Education, Government of Nepal and its institutions) and appraisal thereof on a theoretical basis. These are presented under three sub-headings – intended pedagogical practices, theoretical implementations on the intended pedagogical practices and proposal for pedagogical practices.

## 6.1 Intended Pedagogical Practices

Ministry documents emphasize child centred education at the primary level in the Nepalese schools. Intended/suggested pedagogical practices are narrated in this section based on relevant Ministry documents related to policy and programmes, viz. 'Framework of Child Friendly School for Quality Education' (Department of Education, i.e. DOE, 2010), School Sector Reform Plan (SSRP), Education for All (EFA), teacher preparation and other relevant materials.

### 6.1.1 Child Friendly School for Quality Education Framework

'Framework of Child Friendly School for Quality Education' (DOE, 2010) was approved at Minister's level on 9th November 2010. This document provides explanation on the child friendly school in the introduction part, aspects/factors of child friendly school in the second part and guidelines for the use of framework at the school level in the final part.

Child Friendly School (CFS) framework defines CFS as a school where there is environment for the children to learn in a joyful way according to their pace and ability. This document further points out, 'Interest, ability and level of children is respected and environment and curriculum for learning is organized accordingly.' (p. 2). Minimum and

expected standards for the selected components of CFS indicated in the framework are summarized below in terms of classroom setting and instructional setting.

**6.1.1.1 Classroom Setting:** Emphasizing inclusiveness in teaching learning, framework emphasized that teachers should have knowledge and skills in seat planning, teacher student contact, use of language, no fear and punishment, individualized support, etc. Minimum and expected standards relevant to the related aspects of classroom setting are narrated in terms of classroom space and classroom display.

**Classroom Space:** Though the framework does not mention specific pattern of seat arrangement or varied way of seat arrangement for varied purposes, there are following guiding points regarding classroom space:

- Minimum – 1 classroom per 50 students
  Expected – 1 classroom per 40 students
- Minimum – 0.75 square meter area per student
  Expected – 1 square meter area per student
- Minimum – Mat, cushion for floor seating for the students of grades 1 to 3
  Expected – Carpet, cushion for floor seating for the students of grades 1 to 3
- Minimum – One set of desk and bench for every 4 students
  Expected – Appropriate chair and table for each student
- Minimum – Students age appropriate height of the desk and bench
  Expected – Light desk and bench that allow variety of seat arrangements as required
- Minimum – Width of student's desk 15 inches
  Expected – Width of student's desk 18 inches

**Classroom Display:** Regarding classroom display, the framework has suggested various aspects. These are:

- Minimum – 5X8 ft blackboard
  Expected – 5X8 ft whiteboard
- Minimum – Blackboard reachable by the students of up to grade 3

Expected – Whiteboard reachable by the students of up to grade 3

- Minimum – 1 display board
  Expected – 4 display boards
- Minimum – No cost or low cost materials and materials developed or collected by the teacher and students are managed and used in every classroom
  Expected – Availability and use of basic instructional materials along with electric/electronic materials
- Minimum – Materials related to curriculum displayed on the walls of classroom
  Expected – Availability and use of basic instructional materials along with electric/electronic materials
- Minimum – 1 appropriate size rack for the book corner
  Expected – Subject-wise learning corner for grades 1 to 3 along with book corner.

**6.1.1.2 Instructional Setting:** CFS framework emphasized discovery, interactive and innovative teaching learning activities. For this project work, case studies, observation are suggested. Though the framework does not distinguish between teacher related and student related activities in the standards, related instructional activities are categorized into teacher and student domains in this section.

**Teacher Domain:** Instructional activities that the teacher is supposed to undertake in the classroom as emphasized in the framework are narrated here. These are:

- Minimum – Annual instructional plan prepared by teachers for their teaching subjects
  Expected – Prepared instructional plan is implemented, continuous assessment and appraisal done
- Minimum – Weekly and daily lesson plan prepared and accordingly classroom instruction undertaken accordingly by teachers for their subjects
  Expected – Learning achievement target set for their subjects and continuous improvement activities undertaken
- Minimum – Use of skills in the classroom by the teachers learned in the training

Expected – Use of skills in the classroom by the teachers learned in the training and regular monitoring by head teacher and concerned supervisor.

**Student Domain:** What the expectations are from the students is not specifically narrated in the CFS framework.

### 6.1.2 School Sector Reform Plan

'School Sector Reform Plan 2009-2015' (MOE, 2009) emphasized quality improvement and quality assurance regarding quality education. Enabling conditions, curriculum and textbooks, instructional processes are considered the key elements of quality improvement. These are summarized in this section.

**6.1.2.1 Classroom Setting:** SSRP narrates physical environment and educational environment in relation to classroom setting for quality improvement. Major points of classroom setting emphasized by SSRP are the following:

**Classroom Space:** SSRP suggested separate classroom for each grade; 1 square meter classroom space per student; class size should not exceed 40 students in any grade; and 1:40 teacher student ratio at maximum.

**Classroom Display/Material:** SSRP envisioned a well furnished, properly ventilated classroom for each grade with a writing board, desk and benches, and book corner.

**6.1.2.2 Instructional Setting:** SSRP has given highest priority to teacher preparation and development 'to ensure all teachers have the knowledge and skills required to effectively facilitate students learning processes' (p.37). SSRP narrates instructional provisions and curriculum and textbooks in relation to instructional setting for quality improvement. Major points of instruction setting emphasized by SSRP are listed below:

- Mother tongue as medium of instruction in at least the first three grades of school

- No physical punishment in any form in the school
- CAS with no holdbacks in basic education
- 50% (instead of 32% at present) pass mark to get promoted to the next grade
- Multiple textbooks
- Reading materials
- Information Communication Technology (ICT)-assisted teaching learning
- Local curriculum
- Remedial sessions.

**Teacher Domain:** SSRP specifically envisioned a teacher to be knowledgeable and skilled to facilitate students learning processes; use flexible instructional arrangements; and use of varieties of teaching learning methods to cater to diverse educational needs of the children in higher level of learning achievement. The teacher is expected to use methods and materials to be child friendly, gender responsive and inclusive. The teacher is also expected to be a role model for behavioural transformation.

**Student Domain:** SSRP envisioned the student to enjoy learning and engage in creative work in school and community utilizing full potential with high self-esteem. The student is expected to have basic ICT skills; basic life skills; and understanding and appreciation for bio-, cultural and linguistic diversity. The student is also expected to understand and appreciate the importance of democracy and sustainable development, and develop critical understanding about political, economic, global inequality.

### 6.1.3 Education for All

'Education for All 2004-2009 – Core Document' (MOES, 2003) viewed that there is inadequate conceptual clarity in what quality in education means and also pointed out there is lack of clear standards and norms to ensure and maintain quality. This document tried to conceptualize quality in terms of expectations related to student, teacher, classroom, school, and community/district. EFA core document envisioned a child to be 'inquisitive to learn and has command over a level of knowledge comparable to children of the same age group in the global context' (p. 9). This vision was for the child in 2015 –

3/4 years from now. There were several key points of quality education emphasized in EFA which are summarized in this section.

**6.1.3.1 Classroom Setting:** EFA envisioned a classroom by 2015 that has a stimulating learning environment, meets the learning needs of all students, and ensures development of full potential of each student. Major points of classroom setting emphasized by EFA are the following:

**Classroom Space:** EFA suggested at least 0.75 sq meter classroom space per child; class size in a primary school not exceed 25 students at Grade I and 30 at Grades II to V; flexibly designed furniture so as to allow for a variety of organizational layouts; classrooms arranged to support effective instruction;

**Classroom Display/Material:** EFA envisioned a wide range of teaching aids on display and are used by both teacher and students as a regular part of the teaching learning process; reading and reference books in the classroom; sections of the classroom for specialized activities such as mathematics corner or a reading corner; examples of all students' work are prominently displayed and updated frequently; and for each primary school – 2 computers, library, science laboratory, etc.

**6.1.3.2 Instructional Setting:** EFA has given priority to student's learning and envisioned a teacher who could 'create a stimulating and challenging environment for children's learning' (p.11). Major points of instructional setting emphasized by EFA are listed below:

- The curriculum and educational materials are designed so as to ensure active, child centred learning delivered through a wide range of teaching learning methodologies
- 20% of curricular contents based on local contexts
- Life skills and problem solving
- Learning individually or flexible grouping

- Practical, outside classroom learning environment, interactions with other members in the community
- Teacher explore and use new and innovative methodologies to enhance students' learning and understanding of the curriculum
- Teacher is knowledgeable on the subject to be taught and be updated with the information
- Teacher is responsive to students' learning and other needs
- Teacher facilitates and encourages children to develop critical thinking and helps them to understand different aspects of the issues they are interested in
- Use of teacher made textbooks and other materials
- Use structured and open techniques
- Incorporation of activity-based child centred teaching learning methods into teacher training packages
- Students evaluated through a wide range of formal and informal techniques to identify each student's strengths and weaknesses and facilitate student's learning
- Maintain records on individual students' performance (portfolio)
- Tutoring to help weak students to cope with class teaching
- The national norm of student achievement is fixed at around A level for all primary students of the country, criterion referenced assessment system is used.

**Teacher Domain:** EFA specifically envisioned a teacher to be academically sound and qualified, adequately trained, capable of creating a stimulating and challenging environment for children's learning. The teacher is expected to explore and use new and innovative methodologies to enhance students' learning and understanding of the curriculum. Developing critical thinking and understanding different aspects of issues in the students; effective organization of learning including individualized and group learning; use of structured and open learning techniques are also expected qualities in the teacher.

**Student Domain:** EFA envisioned a student inquisitive to learn and has command over a level of knowledge comparable to children of the same age group in the global context.

### 6.1.4 Curriculum and Curriculum Materials

Child centred and child friendly approaches are emphasized in the curriculum and curriculum materials. In the primary education curriculum, grades 1-3 (CDC, 2005) and primary education curriculum, grades 4-5 (CDC, 2008). Highlights of these documents are presented in this section.

- Teaching learning language should be mother tongue of the majority of the students in the class
- Emphasis on child centred teaching learning activities
- Teacher's role as a facilitator
- Learning by doing
- Project work
- Activity based
- Field tour
- Role play
- Problem solving
- Demonstration
- Inclusive teaching learning process to cater to needs of all types of students
- Student's learning assessment directed towards improving student's learning
- Student provided learning opportunity time and again based on his/her performance
- Maintain student's portfolio of grades 1-3 students
- Grade promotion based on CAS for grades 1-3.

The revised curriculum of the primary level provides matrix with area, learning indicator/specific objective, suggestive teaching learning activities, suggestive assessment process and weighatge. A cursory analysis of the curriculums of few subjects are found to emphasizing following classroom activities,

- Teacher explain and students follow instruction
- Teacher show and students do accordingly
- Teacher provide examples and make students practice
- Teacher show various materials locally available and ask students to tell name, write and describe them
- Tell aloud different words and ask students to draw whatever they conceptualize
- Prepare multiplication table to 2-10 based on figural table and additive characteristic and memorize it
- Give concept of 'x' symbol as in given example
- Ask students to write mathematical statements by giving several examples
- Drill....
- Discuss....
- Step by step exercise....
- Draw conclusion based on question and answer....
- Solve problem....
- Ask student to tell name of the festivals they celebrate
- Draw and tell the name of the festivals student's neighbour celebrate
- Role play how different festivals are celebrated
- Role play of participating in the festivals celebrated by the student's neighbour
- Tell the name of community people who....
- Tell the story....
- Demonstrate and discuss....
- Show and discuss...., Observe, discuss and prepare list....
- Describe...., explain....
- List of questions to lead the discussion....
- Students take note....
- List down....

The intent of the curriculum to employ child centred and child friendly approaches are also reflected in the Teacher's Guides (CDC, 2009; CDC, 2010). Introduction/preface part of two of the Teacher Guides emphasized following aspects,

- Skill in mathematics should be process oriented rather than product oriented
- Use variety of activities and approach in classroom delivery to cater to diverse needs and interest of students
- Involve students in different activities in the classroom
- Practice in real life situation
- Make classroom lively and teaching learning a fun

A cursory analysis of the Teacher Guides of few subjects are found to emphasize following classroom activities,

- Student study given picture carefully and tell what they see in the picture
- Teacher first read with correct tone and stress and students repeat after teacher until students produce the correct tone
- Pair demonstration....
- Pair work....
- Guess what the picture is about
- Discussion based on the picture
- Find correct word....
- Match the word....
- Act out the dialogue
- Clarify concept by....
- Complete the sentences....
- Explain the usage and practice....
- Listen and talk about....
- Un-jumble....
- Listen and do simple tasks
- Write short paragraph on....
- Ask students to tell the names of solid objects around them

- Categorize solid objects based on their shapes
- Show objects and ask students to tell name of their shape
- Game to recognize....
- Ask students to read from book....
- Explain the fact....
- Review....
- Demonstrate and ask to write....
- Explain with several examples....
- Give a mathematical problem and discuss how to solve, ask one of the students to solve it on board, ask how the problem was solved and help if needed
- Discuss and explain the process....
- Clarify with examples....
- Ask to solve other problems accordingly....

### 6.1.5 Teacher Preparation

There have been teacher preparation activities under various initiatives such as CFS and Active Learning, SC/Norway; Innovative Child Centred Teaching Learning Process, Innovative Forum for Community Development/UNICEF; Quality Education Resource Package, World Education; Integrated Interactive Learning, Seto Gurans National Child Development Services; Langtang Quality Education Initiative, Naulekh Foundation Switzerland/Nepal; Quality with Equity Initiatives, Community Owned Primary Education, United Nations Development Programme (UNDP); Punishment-free Teaching Learning Teacher Training programme, SC, National Centre for Educational Development (NCED); Health Education based on Life Skills Approach, NCED; Teacher's Professional Development Module, NCED. Brief description, coverage and outcome of these programs/projects are presented in the coming section and in this section teacher preparation part of these programs/projects is presented.

**6.1.5.1 Child Friendly School, Save the Children: '**Child Friendly Schooling Teachers' Training Manual, 2062' (DOE, 2005) has been developed by DOE with support from SC. Five days training manual intends 1) to make teachers aware about

child rights so that they create conditions to ensure child's rights in the school and the classroom; 2) to make school, classroom and teaching learning child friendly; and 3) to establish cooperation between school and community to safeguard all the rights of children. The contents covered in the five days training are 1) education as fundamental right of children; 2) child friendly school, 3) child centred teaching learning, and 4) school community cooperation. The training methodologies are activity based, group work, discussion, story, problem solving, etc. Though variety of methodologies are used in the training manual, these are used to deliver content/information rather than the skills the teachers should use in their day to day work as a teacher. For example five aspects are listed to create child friendly environment in the classroom – welcoming and secure; attractive and organized; positive and supportive; encouraging and stimulating; changing and exciting. But how these aspects can be fulfilled is not adequately explained. To take another example it is pointed out that in order to create child friendly school it is necessary to 'provide positive experiences for all children and promote their psycho-social well being, self esteem and self confidence'. There are seven indicators for this including 'opportunity for the students to work in a group cooperatively and opportunity to learn by their involvement'. But there are no such activities and description of methods that teacher should use in their classroom to involve students in cooperative learning.

**6.1.5.2 Concept of Child Friendly School: '**Teacher Training on Child Friendly Schooling Concepts' (SC/USA and UNICEF, 2005) was developed to provide training to the teachers of Siraha district. Four days training package covered these areas – significance of training, management and facilities; self description of schools; concept of child rights; meaning, objectives, characteristics, minimum requirements for CFS; visioning CFS; bases of CFS; preparation of annual plan; formation of school improvement committee; and development of code of conduct. The methods suggested in the training manual were picture jigsaw, group work and presentation, discussion, group work, game, question and answer. The main intention of this training was to disseminate concept of CFS to the teachers and information dissemination was the focus rather than skill development of the teachers which teachers could use in their classroom teaching learning.

### 6.1.5.3 Innovative Child Centred Teaching Learning Process, Innovative Forum for Community Development:

'Innovative Child Centred Teaching Learning Process' programme has been implemented by Innovative Forum for Community Development with support from UNICEF, Nepal (Innovative Forum for Community Development, 2004a) and it organizes training for teachers, trainers, managers of different levels on Child Centred Learning Process (2009). Training covers contents related to classroom setting and management; timetable and classroom activities; teaching skills; provision of child friendly materials and use; teacher supportive supervision and follow up; interest and involvement of parents in student's learning; and improved student progress recording. There are indicators/criteria provided for each of the content areas covered and examples how these can be done. In case of classroom instruction for different subjects, time is divided for various teaching learning activities. For example time distribution in English language subject is student teacher interaction 2 minutes, reading message and discussion 3 minutes, news sharing or story sharing 5 minutes, rhyme practice 5 minutes, English teaching learning activities (individual reading, use of library, individual game) 45 minutes, learning game (whole class) 15 minutes, and evaluation activities 15 minutes. Similarly, for mathematics time distribution is 5 minutes for revision, 10 minutes for mathematical concepts, 20 minutes for practice on learning activities, 15 minutes for mathematics learning games, and 10 minutes for evaluation activities. Teaching learning activities emphasized in this training are interaction, Facilitator Teacher's message, storytelling, news sharing, literacy, mathematics, creative writing, three corner practice (three corner group study practice, small group practice, individual reading, reading in library) game, singing, dancing, drama, etc., project/research, and review.

A two hour lesson is delivered in four phases – first phase beginning lesson with interaction, message, and discussion on the message which takes about 10 minutes. 10 more minutes is devoted to the introduction/opening of lesson topic. Thus first phase of the lesson takes 20 minutes. In the second phase students are involved most of the time. Students work in three different groups and students join the subject group of their interest. Teacher facilitates the groups to solve the problem collaboratively. 20 minutes is

given for collaborative work and 50 minutes for library work making 70 minutes for the second phase. In the third phase also participation of students is high in which they play games, sing, dance, drama or role play. This phase takes 20 minutes. In the last or fourth phase of the lesson activities undertaken are reviewed and evaluated. This phase takes 10 minutes.

**6.1.5.4 Quality Education Resource Package:** World Education started Quality Education Resource Package from 2003 with support from UNICEF. In the first phase, 2003 various modules and 31 posters were developed related to community mobilization, school management and governance. In the second phase, 2004-2005, modules for improving teaching learning at grade 1 were developed which covered teaching learning, teaching Serofero (related to Social Studies), teaching mathematics, teaching Nepali, teaching library, and student continuous assessment. In the third phase, 2006-2007, modules for improving teaching learning at grades 2-5 were developed which covered teaching mathematics, teaching English, teaching Nepali, teaching Science, and teaching Social Studies. In subsequent phases additional modules were developed which included professional development of the teacher, Nepali as a second language, teaching disabled students, keeping school data, etc. Quality Education Resource Package implementation was done with orientation and training on required skills to the teachers. Regional level 'Master Training of Trainers', district level 'Training of Trainers', and then school level implementation was the adopted strategy for the programme implementation (2007).

**6.1.5.5 Quality with Equity Initiatives, Community Owned Primary Education:** Community Owned Primary Education provided teachers of its schools 330-hour Basic Primary Teacher Training Curriculum of government and 42-hour Supplementary Teacher Training Curriculum which was developed for the Community Owned Primary Education school teachers with the help of NCED. This supplementary teacher training package included contents on Gender Equity and Equality, Primary School in the Context of Local Communities, Disadvantaged Group of Children, Multi-grade Teaching, and Student Evaluation based on CAS. Community Owned Primary Education developed CAS packages for Nepali, Mathematics and Social Studies for

Grades 1 and 2 in 2001 and trained its teacher on the use of CAS package in their schools (Community Owned Primary Education, 2002; NCED, 2001).

#### 6.1.5.6 Initiatives of National Centre for Educational Development:

NCED is teacher training institution of government responsible for in-service training. It has 10 months teacher training programme to clear backlog of untrained teacher in the system. Now it is providing short term, need based/demand driven training. It has also developed and provided training on 'punishment free teaching learning' (NCED, 2006) and 'life skill based health education' (NCED, 2007a; NCED, 2007b). Currently NCED is conducting 'teacher professional development' modules (NCED, 2010).

'Punishment free teaching learning' manual covers contents related to child development, stress and its indicators, effect of stress in child development and learning, management of stress, punishment and its affects, anomalies in children's behaviour, alternatives to punishment – behaviour management, alternatives to punishment – democratic disciplines, alternatives to punishment – community building in the classroom, counselling works, practice on counselling, and child right treaty, 1989.

'Life skill based health education' for primary and secondary levels cover similar content areas. These are introduction to life skills, types, communication skills, active listening, conflict and negotiation, group work, expressiveness without fear, ability to cope with pressure, empathy, cooperation and teamwork, feedback for effective communication, decision making skills and practice, analytical skills, self-management skills, emotion management skills, stress management skills, and monitoring indicators. These packages are mainly information generating and activities suggested are mainly group work and presentation.

Teacher's Professional Development manual provides introduction and explanation of the programme and also covers introduction to various innovative programs/projects. It provides needs assessment and preparation of training to address them. Introduction to the innovative programs/projects/concepts includes life skills, humanism based education,

critical thinking, sex education, peace and civic education, child centred education, etc. The manual mainly disseminates information about these concepts as an introduction.

**6.1.5.7 Critical Thinking Methodologies:** Open Society Institute, New York conducted a 'One Day Demonstration Workshop on Critical Thinking Methodology' in Kathmandu, Nepal in December 2008. Participants in the workshop were from various groups such as Ministry of Education of Nepal, Education Department and Divisions, Non-Governmental Organizations, School Administration and teachers. After the workshop, the Open Society Institute representatives had several meetings with personnel of the Ministry of Education and Department of Education. The discussion focused on the ways in which the CT programme can be implemented in Nepal. They all expressed a high interest in the CT methodology and affirmed that Nepalese education system is currently undergoing several changes and the ones related to the "quality of education" and "methods of delivery of the content at all levels" can be successfully merged with the CT methodology. Then Open Society Institute with the local partner Alliance for Social Dialogue/Social Science Baha, Kathmandu had Memorandum of Understanding with NCED and Faculty of Education (FOE), Tribhuvan University. Critical Thinking Programme in Nepal has completed a series of CT workshops for in-service and pre-service teacher trainers completed in December 2010 (Goreto Nepal, 2010). English language version of CT manual has been reprinted in Nepal which is also translated and printed in Nepali language as well. Goreto Nepal, a Non Government Organization working on CT programme has prepared adapted version of CT manual to the Nepalese culture/context and national curriculum of Nepalese schools. The scope of the manual is to provide a set of strategies for teaching and learning, which can be easily used from primary school right through to secondary school. The approaches can be used with all subjects in the curriculum, including the study of cross-cutting issues (important contemporary problems that do not easily fit into any one discipline). The manual is intended to demonstrate and explain a well organized set of strategies for teaching that invites and supports learning. The CT manuals provides recipe like step by step instructions in applying the CT strategies along with the theoretical aspects related to these strategies. The content areas covered in this manual are principles of active

learning; core lessons related to learning information from text, understanding narrative text, cooperative learning, conducting a discussion, writing and inquiry, writing to persuade, and understanding arguments; lesson planning and assessment; and teaching in and across the disciplines (Crawford, Saul, Mathews and Makinster, 2005).

### 6.1.6 Innovative Projects/Programs for Improving Classroom Pedagogy

There are several programs implemented in Nepal for improving classroom pedagogy at the school level and some of them are covered in this study as examples. This section presents description of such programs covered in this study, their implementation strategy, notable outcomes found in the evaluation studies of these programs in order to draw lessons from these projects/programs.

**6.1.6.1 Programme Description:** Various programs from various quarters have been focused in improving classroom pedagogy in the primary level in Nepal. Programs for improving classroom pedagogy have been initiated in response to the global campaign for EFA, adaptation of good examples, demonstrate a model, or extension of the programme as described in the following paragraphs.

**Child Friendly School programme:** Child-friendly Schools programme has been launched in Nepalese Primary Schools with the support of Save the Children, Norway and USA. This programme has been launched in response to the global campaign for EFA and UN convention on the rights of child for safe, welcoming and child centred learning environment. Following a Child Friendly School conference in Thailand, CFS initiative was started in Nepal (SC/USA, 2005). Save the Children organizations Norway, USA, Japan collaborate and coordinated CFS programme. CFS programme focuses to address prevalent school conditions where classroom pedagogy is teacher centred; punishment practices exist; learning environment and national provision is poor; crowded classrooms, high rate of dropout, repetition, failure and irregularity is seen; lack of Early Childhood Development opportunity; and poor infrastructure. The CFS is intended mainly to focus in establishing education as children's right; making school infrastructure and environment friendly to the children; promoting child centred active teaching learning in the classroom; and increasing participation of children and parents in school management

(SC/Norway, 2006). Teacher training in active teaching learning; training school management on self-assessment and school improvement plans; infrastructures such as building toilets and water facilities; and promoting child protection messages are the key activities in the CFS programme (SC/USA, 2006).

**Innovative Child Centred Teaching Learning Process:** Innovative Forum for Community Development has developed child centred teaching learning process in the context of Nepalese primary schools. UNICEF/Nepal has been the major supporting organization in this endeavour. Innovative Forum for Community Development 's child centred approach developed from out-of-school programme funded and implemented by UNICEF/Nepal. UNICEF/Nepal organized an eight-day educational visit to Gonoshahijja Sangstha in Bangladesh in June 2000. The aim of the visit was to learn how to improve teaching learning environment in Out-of-School Programme. This visit programme was impetus on the integration of child centred approach into Out-of-School Programme. Innovative Forum for Community Development in the support of Rato Bangala School conducted refresher training on Child Centred Out-of-School Programme methodology for the facilitators. A rapid assessment of UNICEF/Nepal supported Out-of-School Programme (Innovative Forum for Community Development, 2004b) indicated improved and interesting teaching learning activities, increased interaction and creativity, use of learning corner, songs, game, creative writing, etc.

It was strongly felt that child centred approaches employed in Child Centred Out-of-School Programme could help in making classroom teaching learning effective and interesting to the children in the formal education. Another visit programme, again organized by UNICEF/Nepal to Thailand, was also supportive to strengthen the need of child centred approach as well as exemplify the possibility of use of this approach in Nepalese schools. Child friendly teaching learning supported by UNICEF/Nepal with technical support from Innovative Forum for Community Development can be termed as an adopted innovation. Child centred method concept and skill development; rescheduling of the class time table for flexible and coherent classroom activities; children empowerment activities; participatory, interactive and joyful teaching learning

activities; materials provision, grade teaching, supervision/backstopping are the major components of Innovative Forum for Community Development approach.

**Community Owned Primary Education Programme:** This programme was initiated in 2000 by Government of Nepal with a focus on decentralized management of primary education with the support of UNDP. The primary objective of this programme was to demonstrate a model of community ownership of primary education and to experiment with innovations in school governance, pedagogy and school-community relations. Community Owned Primary Education Schools hired female teachers from local communities and there were at least 2 female members in the School Management Committee from the community. School Endowment Fund for each school (average of about NRs. 7 lakhs per school) was raised. There was also provision of small grants to schools for infrastructure, rehabilitation of classrooms, and development of school improvement plans. The schools were also provided with teaching learning materials. The programme supported professional development of teachers in the areas of general pedagogy, child centred teaching learning, continuous assessment of students, and school management. There was also focus on capacity building of District Development Committees and Municipalities in primary education. The programme established 120 new schools in partnership with community organizations in 83 Village Development Committees of 6 districts. The aim of the programme was on access to quality education.

**Quality Education Resource Package:** In response to government strategy to enhance quality of education World Education conducted a study covering 100 schools. Based on study findings a workshop was organized in October 2003. The workshop suggested four areas to be improved – Community Mobilization, Welcome to School, School Management and Local Governance, and Improving Teaching Learning. Based on this World Education developed 30 modules and posters related to the modules in a phase-wise manner. This package is called Quality Education Resource Package.

**Dual-Audience - Interactive Radio Instruction:** Dual-Audience - Interactive Radio Instruction programs were supposed to provide continuing training during regular class time. In this programme teachers as well as students were provided specific

instruction for activities based on the aim of content covered. This was the reason for labelling the programme dual audience (MOE, 1999b; CERID, 2001). Development of Dual-Audience - Interactive Radio Instruction programs started in 1998 and 25 programs for Grade 3 Mathematics and 25 programs for Grade 5 English were developed. The programs promoted teaching strategies that emphasized student-to-student interaction, use of teaching materials, and linking content to real life situation.

**Educate the Child programme:** Educate the Child launched Integrated Community Development programs in Nuwakot and Rasuwa districts from 1995 to 2003. Participatory approach to local development was emphasized in this programme. Educate the Child programme was driven by the conviction that education works as stimulate to trigger changes and to transform people mentally and materially. Other programs that followed this major focus were agriculture support services, smokeless stove distribution, toilet and biogas distribution, micro-credit schemes. In the education component Educate the Child support was in infrastructure development, teacher training, material and textbook distribution, scholarships, etc. (Educate the Child, 2006).

**Other Programs:** Other organizations were also found supporting the schools such as Centre for Cooperation and Development, Italy, Gnha, Germany, World Vision International, Room to Read, Rural Reconstructions Nepal, Morang, Plan Nepal, Round Table, Morang, Rato Bangla School, Langtang Quality Education Initiative, Rasuwa, Seto Gurans National Child Development Services. Centre for Cooperation and Development, Italy support to the school for classroom teaching learning improvement was mainly extension of CFS programme. Similarly Gnha support used Rato Bangala School's teacher training and materials for child centred teaching learning improvement.

**6.1.6.2 Implementation Strategy:** Implementation of various programme was studied by CERID in 2007. Collaboration with the government institutions has been the main strategy for implementation of the classroom teaching learning programs. Involvement of the field offices, partnership with Non-Governmental Organizations, working with the community were also important programme implementation strategy of

SC, UNICEF, Community Owned Primary Education, World Education, etc. Teacher training, monitoring, technical backstopping were also equally prioritized strategy. Educate the Child programme strategy was community mobilization and empowerment. Dual-Audience - Interactive Radio Instruction programme intended enhancing teachers' skills through teachers' following the instructions in the classroom setting itself provided through audio. Basically following components were emphasized:

**Collaboration with Government Institutions:** Save the Children, Norway had signed Memorandum of Understanding with DOE at the central level and it also collaborated with District Education Office at the district level. UNICEF/Nepal, Eastern Regional Office has signed Memorandum of Understanding with the DEOs of its programme districts. Community Owned Primary Education programme of UNDP worked closely with Ministry of Local Development, District Development Committees and DEOs.

Other programs covered in the study (CERID, 2007) have also some kind of collaboration with the government institutions. Some of District Education Office personnel were also working as focal person for the programme such as in Kavre one person for UNICEF/Nepal programme and one for SC/Norway programme. This kind of collaboration has been found to have a positive aspect. *Despite such collaboration, impacts of these programs in the government policy making and programme replication at the government level are not found to be a rule. These are seen as projects and projects usually remain in action during project period only.*

**Field Offices:** Programs/projects of SC/Norway, UNICEF/Nepal, Community Owned Primary Education, have their field offices and their own staffs for the programme implementation. The impression at the school/community level was that these field offices are the ones responsible for the programme and they are accountable to these field offices. *There was lack of realization that the focal point of the support is the public system and capacitating it is the main purpose.*

**Partnership with NGOs:** UNICEF/Nepal has involved Innovative Forum for Community Development for training and material development. UNICEF/Nepal has also collaboration with World Education to provide Quality Education Resource Package to the school it has been supporting. *Such collaboration is supporting in enhancing expertise as well utilization of it. Expanding such collaboration and utilization of Non-Governmental Organizations/private institution is seen to be a fruitful endeavour.*

**Community Mobilization:** Community mobilization and parental awareness are emphasized in the programs. SC/Norway, UNICEF/Nepal, Community Owned Primary Education and Educate the Child programs emphasized orientation and involvement of the community and parents in the programme in various forms such as participation in the management committee, monitoring, etc.

**Training:** UNICEF/Nepal with Innovative Forum for Community Development and SC/Norway developed short term training package for child centred teaching learning – Child Centred Teaching Learning Process by Innovative Forum for Community Development and CFS by SC/Norway. Whereas Community Owned Primary Education used NCED's 10 months package with one additional manual -- 'Supplementary reading materials for Community Owned Primary Education school teachers'**.** With the support of SC/Norway, DOE has prepared 5-days short term training manual titled 'Child Friendly Schooling Teachers' Training Manual, 2062'. Classroom teaching learning is also covered in this manual. SC/Norway field office Kavre found the manual crowded with the excessive theoretical/conceptual materials so that there was less time to cover and practice skills useful for the classroom teaching learning activities. SC/Norway, Kavre field office's attempt to fulfil the need for making classroom teaching learning more active and activity-based resulted in the development of 'Active Teaching Learning Training Package' of 5-days duration. NCED adopted 'Child Friendly Schooling Teachers' Training Manual, 2062' in its training. *Two of the above examples might have implication to rethink: 1) if NCED training needs to include package such as that of Community Owned Primary Education for better training result, and 2) how to establish timely*

*communication between programme and related government institutions to share the changes and developments such as development of Active Teaching Learning.*

**Materials:** Required materials for the effective classroom teaching learning has been provided in the studied programs (CERID, 2007). SC/Norway and UNICEF/Nepal have provided set of materials as well as provided orientation and developed more of the instructional materials during training. Provision of the materials was appreciated by the teachers and they also opined that this provision was instrumental in using skills learned during training. Formative Research Project (CERID, 2003) on 'Transfer of Training Skills in the Classroom Delivery' had identified provision of the materials to be one of the factors for the transfer of training skills in the classroom.

**Monitoring and Technical Backstopping:** Responsible staffs of the DEO in Kavre, Morang and Sunsari were found monitoring the programs for which they were focal person (SC/Norway and UNICEF/Nepal). Monitoring was also done from the field offices. Innovative Forum for Community Development has also followed up and provided technical backstopping in the UNICEF/Nepal programme it was involved in. SC/Norway, Kavre field office was directly and through the key teacher was providing technical backstopping to the teachers. Such monitoring and technical backstopping was viewed to be helpful to clarify misunderstanding and difficulties faced by the teachers. But frequencies of such visits were limited due to *Bandh* and strikes (CERID, 2007).

**Mobilizing Community, Educate the Child:** Educate the Child strategy for the programme implementation was through the community itself. Non-Governmental Organization capacity building and direct involvement of the community people was emphasized. Target population was involved in identifying the needs, prioritize them, and in the intervention of the programme. In the programme designing the women groups were the key players in shaping and designing the programs. Leadership development and capacity building were also emphasized in the programme. (Educate the Child, 2006).

**Piloting of Dual-Audience - Interactive Radio Instruction:** Interactive Radio Instruction programme, intended for both teachers and students, were piloted in fifty

schools in five districts. Programs were developed and programme cassettes provided to the 'formative evaluators', District Education Office supervisors. Formative evaluators used to bring cassette recorder and Interactive Radio Instruction programme cassettes with them to the participating schools and play them in the classroom. Formative evaluators provided their feedback on lesson quality, production quality, teacher behaviour and student behaviour. The format of the programme was to provide classroom teaching learning skills to the teachers and practice the skills as they listened the Interactive Radio Instruction programme. (CERID, 2001; MOE, 1999b).

**6.1.6.3 Notable Outcomes:** The programs covered in this study (CERID, 2007) were found to have succeeded in improving classroom teaching learning. The study pointed out following aspects to be helpful in bringing out positive outcomes in the programs/projects as described in this section.

**Building Shared Vision and Knowledge:** Training to the teachers and involving community people and parents in the programme was one of the strategies of these programs. This has been instrumental in building shared vision and knowledge to some extent.

**Classroom Teaching Learning Improvement:** Classroom teaching learning improvement was the major purpose of these programs. Child right, child friendly approach, no use of corporal punishment, use of materials, interactive approach, emphasis on curriculum, continuous assessment are emphasized.

**Impact on Learning Achievement:** Classroom environment and classroom teaching learning has been reported to have been improved. There are also reported evidences of the impact in the students learning achievement, regularity, enrolment, etc.

**Physical Infrastructure Development:** The programs have provisions of essential physical development such as classroom, toilet, and drinking water. The supports

provided to the schools in the area of physical infrastructure have been reported by them and these supports were viewed contributing in improving quality of education as well.

### 6.1.7 Summary of Intended Pedagogical Practices

The major documents related to CFS framework, EFA and SSR/SSRP which provide frame for intended pedagogical practices at the Nepalese primary school classroom have been presented in this section. The major intents regarding pedagogical practices are summarized here in terms of classroom setting and instructional setting.

**6.1.7.1 Classroom Setting:** Various documents have reflected upon number of students, space, seating material, furniture, instructional material, display, etc. for the improvement of quality of teaching learning at the classroom. Summary of these aspects are presented in the following table:

**Table 6.1: Aspects of classroom setting suggested in educational document**

| Classroom aspect | CFS framework[#] | SSR/ SSRP | EFA |
|---|---|---|---|
| **Students/ classroom** | 40 | 40 | 25 in Grade I and 30 at Grades II to V |
| **Area/student** | 1 sq. m. | 1 sq. m. | At least 0.75 sq. m. |
| **Students/ teacher** | | 40 | |
| **Seating material and arrangement** | Chair and table for each student | Desk and benches | Flexibly designed furniture to allow for a variety of organizational layouts<br>Classrooms arrangement supportive for effective instruction |
| **Writing board** | Whiteboard | Writing board | Chalk board |
| **Display** | 4 boards | | Examples of students' work displayed and updated frequently |
| **Instructional materials** | Basic and electric/electronic materials | Display<br>Textbook, Teacher Guides, curricular materials | Wide range of teaching aids on displayed and used |
| **Furniture** | Subject-wise learning corner and book corner | Book corner | Subject and reading corners |

[#] Note: These figures are expected and figures set for minimum requirements are less than these figures

**6.1.7.2 Instructional setting:** Instructional setting as envisioned in the CFS framework, EFA and SSR/SSRP documents is summarized in this section. Summary of aspects related to instructional setting are presented in the following table:

**Table 6.2: Aspects of instructional setting suggested in educational document**

| Instructional aspect | CFS framework[#] | SSR/SSRP | EFA |
|---|---|---|---|
| **Emphasis** | Discovery, interactive, innovative teaching learning activities | Facilitation of students learning processes, Flexible instructional arrangements, CAS<br>No punishment<br>Mother tongue, Multiple textbooks, Local curriculum | Stimulating and challenging environment for children's learning<br>Active and child centred learning<br>Practical and outside classroom learning environment |
| **Methods** | Project work, case studies, observation | Use of varieties of methods to cater students needs<br>Methods and materials to be child friendly, gender responsive and inclusive | New and innovative methodologies, Active and child centred methods<br>Individualized and group technique, Activity-based child centred teaching learning methods<br>Formal and informal techniques, Structured and open techniques |
| **Teacher dimension** | Instructional plan, continuous assessment<br>Set learning achievement target and appraisal<br>Use of training skills, head teacher and supervisor monitoring | Deliver lessons in creative and lively ways<br>Role model for behavioural transformation | Academically sound and qualified, adequately trained, capable of creating a stimulating and challenging environment for children's learning<br>Explore and use new and innovative methodologies to enhance students' learning and understanding of the curriculum |
| **Student dimension** | No specific statements | Understands and appreciates democracy<br>Respects and appreciates labour and work, and diversity<br>ICT skills, Life skills, Critical understanding | Inquisitive to learn and has command over a level of knowledge comparable to children of the same age group in the global context |

[#] Note: These figures are expected and figures set for minimum requirements are less than these figures

## 6.2 Theoretical Implications on the Intended Pedagogical Practices

Section 6.1 provided an overview of intended pedagogical practices in the major recent documents particularly that of CFS framework, EFA and SSR/SSRP. The reflections and provisions related to classroom pedagogy in the curriculum and curricular materials as well as teacher preparation on those lines were also analyzed in section 6.1. The major aspects covered in the analysis were classroom space and display in terms of classroom setting, and instructional emphasis, suggested methods, teacher domain and student domain in terms of instructional setting. These aspects are further analyzed with respect to theoretical implications in this section.

### 6.2.1 Classroom Setting

Physical environment of the classroom such as space, seating material, instructional materials, material display, furniture, etc. add to the comfort of the pupil and support in the effective classroom teaching learning. But it is not easy to draw a definite line on classroom size, seating material, display etc. Theoretical implications regarding classroom space and classroom display is presented below:

**6.2.1.1 Classroom Space:** Students spend most of the day time (6-7 hours) in a classroom. It is an important consideration as to what should be the size of a classroom in terms of space and number of students for effective learning. Kinsler and Gamble (2001) cited a research study done by US Department of Education which concluded that a diverse population of students will benefit with a smaller size of 15-20 students at the early grades. This size was found to promote student achievement moving the average child from the $50^{th}$ percentile to the $60^{th}$ percentile and for disadvantaged and minority children the increase was even larger. Tanner (2009) reviewed schools and achievement of students and concluded that the major problem is not the size, but density – area per child/student. High density conditions either due to too many students or due to little space cause stress, interference and loss of control. Considering guideline of social distance of 7 feet in man and woman Tanner developed a chart of 'a minimum standard for classroom size' with 50.13 square meters for 10 students plus 1 teacher and for 20 students plus 1 teacher the classroom size is 95.70 square meters. Tanner concluded that

no more than 17 students per average classroom (about 85 sq. m. size) for the elementary schools. This gives a space of about 5 sq. m. per student in American standard which includes seating for students, display materials, cupboards, learning corners, etc. Classroom size and space is important factor, but not the sole determining factor for the learning.

Cohen (1996) viewed that fundamental aim with the classroom environment is to organize it in such a way as to back up educational purposes set. Space in a classroom is often limited in most of the cases. Managing available space is vital skill for a teacher. Pollard (2006) opined that the way a teaching space is organized has considerable impact on the kind of teaching that can happen, the attitude of the learners and the quality of learning. The way classroom seating is arranged also influences classroom communication and the way classroom participants (teacher and students) relate to one another. Senge (2000) suggested designing classroom to lead students to a state of 'natural flow'. These viewpoints suggest that even if limited space is available in the classroom, available space should be exploited maximally for effective classroom teaching learning. Thus management of available classroom space becomes one of the important skills for the teachers.

Classroom arrangement should be guided by the notion of 'fitness for purpose' (Cohen, 1996). Cohen discussed five principles for management of classroom space – 1) providing opportunities for a variety of child centred and teacher centred activities, 2) reinforcing children's more formal work through real experiences or play, 3) setting up opportunities for tactical or imaginative play/activities, 4) making available the essential resources that have pupils to learn, and 5) creating an environment for spontaneous learning.

A vibrant classroom requires variety of seating arrangement for different purposes. In this context light and easy to move classroom furniture would be useful (Alexander, 2000). But it is important for the teachers to have skills how to organize available furniture for the purpose. Row and column seating arrangement is suitable when students are to be kept on task individually. This will minimize the opportunities for students to have eye

contact with each other and maximize the opportunities for the teacher to have eye contact with the whole class (Cohen, 1996). While independent work benefits from relative isolation, group seating arrangement is useful for cooperative learning. The U-shape seating arrangement situates the teacher in front of the open end of the U and gives her/him more authority. This seating arrangement is useful when working with group of students who lack discussion skills or when behaviour management is a problem. U-shape provides greater freedom of movement (Arends, 2001). Arends views the circle arrangement of seating is useful to minimize emotional and physical distance among the teacher and students and maximize opportunities for students to talk with one another. When the seat such as desk and bench cannot be moved for different seating arrangement, students can change their seating pattern to form group. Crawford (2005) sketches students of two benches face each other to work as a group without moving the seats. There are other forms of seat arrangement as well as to fulfil different purposes of instruction. Ramsden (1999) listed these types of seating arrangement – cluster, desk rows, table rows, semi-circle, pairs, activity zones or centres.

Though seating arrangement in a classroom signifies what might go in the class during teaching learning in terms of teacher's role and students' involvement, Alexander (2000) pointed out that it is essential to study teaching in action than draw inferences from classroom geography alone. There is difference between 'base' (where students sit) and 'team' (how and with whom they work). It might happen that students are seated in groups, but work individually, and they may be seated in rows but work cooperatively or seating can be rearranged during the lesson as well as required. Alexander argues that nevertheless seating arrangement in the classroom provides first order of indicator of classrooms' pedagogical centre of gravity. For example row-wise seating arrangement where students face teacher in front separated by different seat or raised platform assumes teacher dominance and one way communication – from teacher to students.

From the above argument it can be derived that sensible and purposeful use of available space is crucial for better outcome of classroom teaching learning. A study analyzing the determinants of students performance on the Third International Mathematics and Science Study using data for more than 260,000 students from 6,000 schools in 39 countries found

that education spending on per student, class size, student teacher ratio at either the school or country level has no positive impact on student performance. The study rather found instructional materials and teachers with an adequate formal education have a significant impact on students performance (The World Bank, 2005). *Therefore it is important for the teacher to be skilful in planning and using available space in sensible and purposeful manner in best possible ways. Reducing class size or providing larger space will be supportive, but these aspects should not be promoted as determinants for quality teaching learning. Envisioned changes/improvements should be applied/practiced 'from now on basis' for the physical aspects which are durable and last for longer period such as seating materials, classroom construction, etc.*

**6.2.1.2 Classroom Material/Display:** Instructional materials used during classroom teaching learning and materials displayed in the classroom along with others basic resources are emphasized in CFS framework, SSRP and EFA. Instructional material is one of the heavily covered content in the pre-service and in-service teacher trainings. Low cost, no cost instructional materials are also emphasized.

It is imperative to have adequate resources for effective classroom teaching learning. It is also important to recognize various types of resources that can be used. Pollard (2006) distinguished four types of resources – people, building, equipment and materials. Quality and quantity of these resources have an impact on what is possible to do in schools and classrooms. Along with the supply of appropriate resources, organization of them is also equally important. Pollard suggested four possible criteria to be considered when organizing resources: appropriateness, availability, storage, maintenance.

It is important to be cautious that unavailability of costly and fanciful materials should not provide means to evade from use of required materials or cover up for low quality of teaching learning. For example good science teaching should be based on observation and experiment. Special facilities and materials are required for performing experiments in Science. UNESCO (1962) pointed out that science teaching has suffered in many parts of the world due to lack of required materials. It also pointed out the erroneous belief that to introduce laboratory teaching requires elaborate equipment made by commercial

manufactures. Development of materials for experiment in science education at the local/school level was provided in UNESCO 'source book for science teaching'.

Collaborative learning principles (Udvari-Solner and Kluth, 2008; Crawford and others, 2005) uses experiences of the students maximally as learning resources that students can share and learn from each others. Using experiences of students and sharing those in the classroom for initiation and validation can compensate for a lack of a number of materials in the classroom teaching learning. *It is important to orient the teachers on priority basis – first how to deliver classroom teaching learning effectively using repository of students' experiences as learning material and make the students share and interact with each other; secondly using no-cost materials collected by teacher and students; thirdly selecting low-cost materials which will be required to develop complete materials by themselves; and lastly materials that need to be bought from market with available funds of the school.*

Display in the classroom is recognized to be a significant learning resource. It is an organized visual arrangement of learning materials, usually on a wall or a horizontal surface, which is designed to present significant information or ideas on a given topic. Classroom wall can be used for displaying students' work, stimulus materials and resource materials around the topic of ongoing lesson (Cohen, 1996). Classroom display is intended to elicit interest and curiosity (motivational); to add information and comprehension as a unit of work proceeds (developmental); and to pull together all of the key ideas in the unit (summary). Classroom display and use of displayed material has been emphasized in the educational documents. Classroom observation during field work in this study also showed that most of the observed classrooms were without any displays in the first hand and where there were classroom displays these were mostly for decorative purposes rather exploiting them for instructional purpose. Also where there were displays these were random and unplanned. Pollard (2006) advised to give attention on design, possibilities, purposes, quality and practicality in regard to classroom display for better classroom environment. *Therefore it is essential to provide teachers with knowledge and skills in managing and using classroom display for instructional purposes rather than making it only a show off activity.*

### 6.2.2 Instructional Setting

As presented in table 6.2 above there have been various instructional emphases in the educational documents. There have been attempts to address/reflect these emphases in the curricular documents and teacher training materials. The major thrust on pedagogical process has been on child/student centred approach. Child/student centred approach has been elaborated in chapter 2 of this document. The problem, however, is in translating child/student centeredness approach at the classroom level and defining teacher and student characteristics in line with the envisioned pedagogical approaches. This section attempts to discuss on these aspects.

**6.2.2.1 Child/Student Centred Pedagogical Emphasis:** Existing practice in Nepal is national curriculum, subject-centred curriculum and public examinations at Grade 8 district level and Grade 10 national level. SSRP suggested public examinations at Grade 8 district level, Grade 10 regional level and Grade 12 national level. There have been different perspectives in child centred education – from a child chosen curriculum to the delineation of an active, experiential and concrete form of learning (Cohen, 1996). Even child considered curriculum has also been suggested. Cohen argues a cooler, less fundamentalist, less pejorative and less dismissive reading of child centred education is tenable as quoted below:

> This respects the individuality of the child (in differentiated activities), demonstrates the value of first hand, experiential learning (implicit in constructivist psychology) which 'begins where the child is', and argues for some form of negotiation with children rather than a steamroller with heavy prescriptions. (p. 164).

*There is a need first to clarify envisioned pedagogical approaches and then suggested implementation strategy. It will be worthwhile to plan a step by step implementation and development plan and execute it in incremental way with emphasis on building upon successes and expanding.*

**6.2.2.2 Method:** CFS framework, SSRP and EFA documents provided pedagogical emphasis intents for using new, innovative, active, child centred, activity based and such methods for classroom delivery. Specificity and concretization of such intents is expected

in curriculum first and further elaboration and detailing in curricular materials, teacher preparation and assessment practices. Analysis of curriculum shows that intents of CFS framework, SSRP and EFA documents are found reiterated in the curriculum (Paudel, 2011). Though there is use of terms in the curriculum reflecting the intents of these documents, there is no specific guideline on pedagogical methods to fulfil these intentions. Curricular materials and teacher preparation materials should further concretize pedagogical methods to be used in the classroom. As further down to the implementation level is explored, the pedagogical intents flitter around without connecting to specific pedagogical theme such as child centred, reflective teaching, collaborative learning, critical thinking, etc.

Another reason for lecture oriented and teacher centred practices in the classroom are due to teacher preparation that emphasize content matter more than developing skills and the way teachers are trained/oriented. Recent studies (FOE, 2011; Goreto Nepal, 2011) viewed that teacher teach their class the way they were taught in the school/campus. It has been pointed out that lecture is used to teach whatever variety of teaching methods would be listed in curriculum/course of study. *Skill development is necessary in the teacher preparation programs with adequate modelling and practice. Demonstration of the methods followed by debriefing and discussion would be helpful in skill development.*

Another aspect that could be discerned from the curriculum for the limited teaching learning strategies by the student teachers is that in the curriculum itself there are limited methods covered and also there is lack of variety in the methods. Lecture, discussion, inquiry, project, inductive/deductive, team teaching, question answer, observation, simulation, case studies are covered in the teaching methods (FOE, 2010). These methods have been in the course of teaching methods since last two decades or more. Recent methods are not included in the teaching methods such as reflective, cooperative, problem solving, critical thinking, etc. Though government educational policy and programs emphasize student-centred education, student-centred methods are also not included in the teaching method course at the B. Ed. level. *Updating and addressing national needs should be considered in the curriculum revision process.*

It is also important to be cautious that no one teaching learning strategy can accomplish all types of learning or to work for all learning styles. Joyce and Weil (1980) emphasize that there are many kinds of learning requiring different methods of instruction and students come with different learning styles calling for different approaches. *Therefore teacher preparation courses should provide room for variety of teaching learning strategies.*

Teacher preparation materials of FOE or NCED do not cluster teaching strategies in related clusters/themes. *Clustering related pedagogical strategies/methods would be helpful first to provide theoretical orientation and then to lead to skill development. Even if all the strategies/methods could not be practiced, practice of selected strategies/methods could help to understand other strategies/methods in the cluster/theme.*

National Education Association narrated research spotlight on best practices in education (www.nea.org) listing them as grouping, block scheduling, cooperative learning, home visits, out-of-field teaching, parental involvement in education, peer tutoring, project based learning, etc. Block Scheduling emphasizes block schedule consists of three or four longer periods of daily instruction than fixed routines of 6/8 periods. The increased span of teaching time offers benefits for teachers and students. Cooperative learning is expected to result in higher achievement as students work through an assignment until all group members successfully understand and complete it. It is also found that students benefit working in pairs to help one another learn material or practice an academic task. Project-Based Learning is useful to shift classroom activity away from teacher-centred instruction and emphasizes student-centred projects. In Project-Based Learning the teacher would be a coach, facilitator and co-learner. *It is important for the curriculum developers and teacher educators to keep themselves updated with the pedagogical researches and adopt and try out best practices in the system.*

**6.2.2.3 Teacher:** The world is always in a flux of change brought by nature as well as by mankind. A changing world requires a change in education as well. Goble and Porter (1977) viewed that young people need to be prepared for adult responsibilities which

would be different from their parents and the existing repertoire of skills will not suffice in the changed situation. Role of the teacher also changes with societal change, demands and needs.

Teacher's role in education and students' learning is the most significant factor (Jones, Jenkin and Lord, 2006). Di Giulio (2007) stressed that 'teachers are our last and best hope'. Similar views are expressed by Roy Singh, 'no education system can rise too far beyond the level of the teachers in it' (1991) and Volunteer Service Organization observed, 'teachers are the central actors in education, facilitators of learning, bringers of knowledge, brokers of relationships between pupils and the societies in which they live' (2002).

Teacher's role is looked upon from different perspectives. Cohen (1996) itemised role and function of the teacher in the primary classroom as manager, observer, diagnostician, educator, organizer, decision maker, presenter, communicator, facilitator, motivator, counsellor and evaluator. Sutherland (1988) observed teacher's role in child centred education as providing resources; letting children discover for themselves; controlling the influence of other children; and being neutral. In similar way Kordalewski (2000) emphasized teachers' role in terms of demanding, informing, teaching, arising and negotiating. Teacher's demands on students to exhibit their performance on the assignment had an impact. Informing role of the teachers requires teachers to communicate their expectations to students. If students know what kind of work teachers want them to do, they will be guided to focus their efforts towards producing it. Teaching role of the teachers further clarifies students as to what is required of them to do and also model how to do. The arising role of the teachers is to lead students to pursue groundbreaking activity on their own accord. Lastly, the negotiating role of the teachers requires them to negotiate classroom standards to achieve the best what students are individually capable of. In the learner centred paradigm, teacher's main roles are viewed to be as a diagnostician, provider of an instructional environment and facilitator of growth. These roles require teachers to respond to children spontaneously; be generalities rather than specialists; and take an involved interest in what the child is doing (Schiro, 2008).

Effective school and effective classroom teaching learning are desired for quality education. Jones, Jenkin and Lord (2006) pointed out that the greatest impact on overall school effectiveness is due to the classroom level factors. In this regard effectiveness of the teacher is an important feature. Therefore focus on teacher effectiveness and quality has increased. Jones, Jenkin and Lord cited effective teachers:

- Have a positive attitude
- Develop a pleasant social/psychological climate in the classroom
- Have high expectations of what pupils can achieve
- Communicate lesson with clarity
- Practise effective time management
- Employ strong lesson structuring
- Use a variety of teaching methods
- Use and incorporate pupils ideas, and
- Use appropriate and varied questioning.

Arends (2001) viewed effective teachers require careful and reflective thought about what a teacher is doing and the effects of his or her actions on the students' social and academic learning. He highlighted that effective teachers have personal qualities that allow them to develop authentic human relationships; positive dispositions toward knowledge; command a repertoire of teaching practices; and are personally disposed towards reflection and problem solving. Elliott and others (2000) examined qualities of outstanding teachers as having lesson clarity, instructional variety task involvement, careful praising, consistent classroom guidelines and periodic feedback. Driggs (2009) viewed questioning by teachers a valuable skill. The questions can be used at once the starter and the steering gear of the lesson. He opined that to arouse thought and to guide it to educative ends, the question must be thoughtfully made and rightly aimed. Westwood (2008) listed a summary of teacher effectiveness characteristics from several studies on teacher effectiveness. This list includes –show enthusiasm; have well-managed classrooms; provide students with the maximum opportunity to learn; maintain an academic focus; have high, rather than low, expectations of what students can achieve; are business-like and work-oriented; involve all students in the lesson; use strategies to

keep students on task, motivated and productive; impose structure on the content to be covered; present new material in a step-by-step manner; employ direct (explicit) teaching procedures when necessary; use clear instructions and explanations; use a variety of teaching styles, methods and resources; frequently demonstrate appropriate task-approach strategies; monitor closely what students are doing throughout a lesson; adjust instruction to individual needs, and re-teach content where necessary; provide frequent feedback to students; use high rates of questioning to involve students and to check for; understanding; differentiate their questions according to students' ability; and spend significant amounts of time in interactive whole-class teaching. He also pointed that most of these components of effective teaching are not given much importance in the professional training of teachers.

*Such a listing can go into a number of pages. The main challenge is firstly to conceptualize these aspects in skills which can be employed at the classroom level and secondly incorporate these in the teacher preparation programs for skills development rather than including these concepts as content matters only.*

**6.2.2.4 Student:** Children/students are at the heart of education. Students are expected to be active, learn outside of school as well, involve in teamwork, ask questions, find answers to questions, and have high interest in learning. UNICEF (2003) narrated some facts about children and learning as follows:

- All children have an eagerness to learn.
- Each child brings a different set of abilities, expectations, experiences and attitudes to school.
- Children use their existing experiences and knowledge to construct new understanding and skills. What they are able to learn will depend to some extent on what they already know.
- 'How' and 'what' children are encouraged to learn are inseparable as the learning opportunities, activities and support affects their responses, experiences and attitudes to learning and what they gain from the learning process.
- Harnessing children's curiosity and eagerness to learn is critical. Children learn best when they can be active and when they understand what they are learning.

Young children's knowledge and interests are stimulated through the chance to engage practically with the activity provided.

- The most valuable methods for student learning are those that correspond to their individual developmental stages and needs. These methods cannot be uniform across students.
- Learning is a social process and planning must take into consideration the social context in which learning takes place. As children will not realise their intellectual potential in a vacuum, they should be encouraged to learn through collaborative groups with peer interaction in as natural a setting as possible.
- Learning should give emphasis to the application of learning rather than covering materials/syllabus and repeating back what the teacher has said.
- Adults play a crucial role in the learning process of children. Teacher as facilitator, planner, instructor, mediator and explainer provides a nonthreatening context for learning to take place.

Every child is curious and creative. If these qualities are not nurtured and ample environment is not provided, these will soon die (Prakash, 2007). Existing classroom condition is not conducive for sustaining and enlightening child's inborn curiosity and creatively. Linskie (1977) viewed classrooms rather dehumanizing with order, silence, conformity, docility and regimentation. Linskie emphasized that students physical, emotional and social needs must be catered to. *In order to cater to the needs of children/students to maximise their learning, several factors play roles. It is important to identify them and prioritize actions from what is possible now and what should be achieved and how they could be achieved in time bound strategy manner.*

## 6.3 Proposal for Pedagogical Practices

The notion of 'teaching students' need to give way to 'helping students learn'. Teaching and learning is not a case where one giving and another receiving, but it is learning and growing together and building upon existing knowledge and experiences on a continuous basis. Based on basic premises of pedagogical practices and their theoretical implications, a proposal has been forwarded for pedagogical improvement. This proposal has been

shared in an interaction programme with Ministry personnel, University teachers and school level stakeholders.

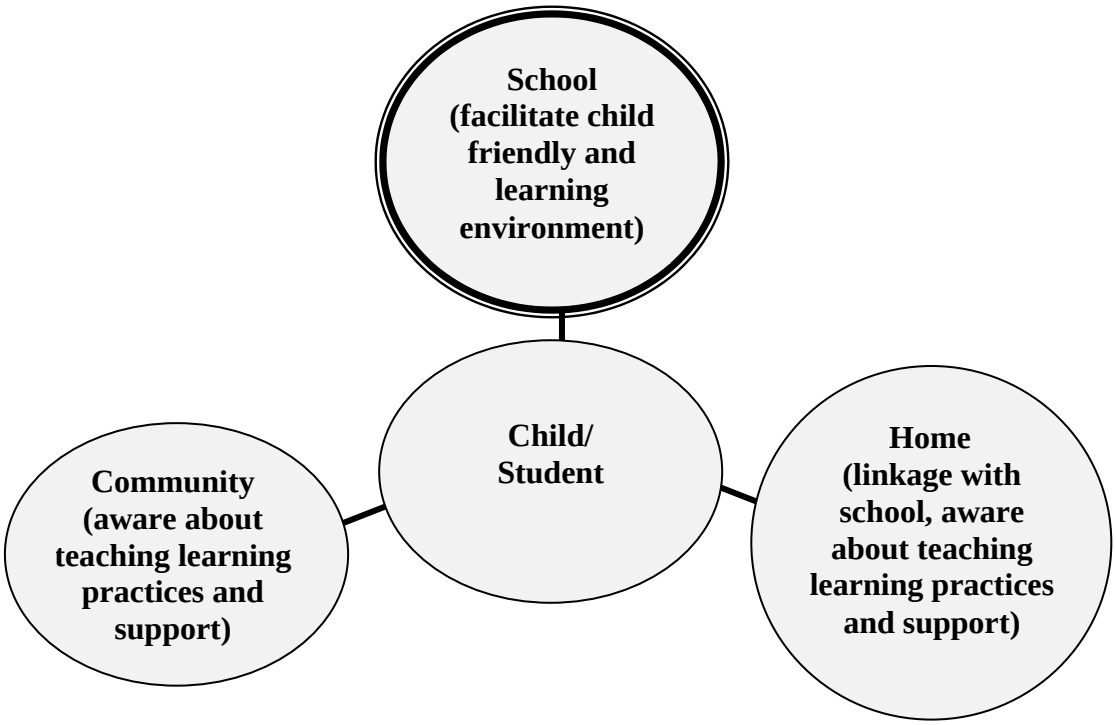
Students and teacher are actors in the teaching learning process in the classroom. Students should be at the centre of classroom teaching learning process as well and teacher is the main actor who can make it happen. There are other enabling inputs in support such as material resources, human resources and school governance as pointed in the EFA global monitoring report (UNESCO, 2004).

This proposal for improving pedagogical practice puts the students at the centre of educational process in which various agencies, persons and systems play vital roles. Various activities, programmes and policies are required in order to achieve quality improvement at the classroom level. These cannot be achieved in one shot and there are financial constraints as well. Therefore it is suggested to prioritize the actions and take step by step actions with clear notion and corresponding resources in relation to the practical side. Fullan (1991) stresses that without clear notion and corresponding resources many innovations have failed. He also suggested starting small, experiment and expanding the successful while contracting the less successful in a process not as an event of change.

### 6.3.1 Agencies in Children's Learning

Agencies related to educational process which are directly related with the teaching learning processes are school, home and community with whom students come into contact in day to day living (please see figure 6.1). This proposal puts school in the priority to start improvement in classroom teaching learning practices. At the school also classroom teaching learning improvement activities can be started with existing classroom and school situation. The next step can be planned when no further improvement is possible without further improvement in the physical aspects. As improvement in the school level is brought and experienced, then awareness and support of the home and then community will also be required for the synergic impact in the improvement initiatives. These aspects come into the process step by step.

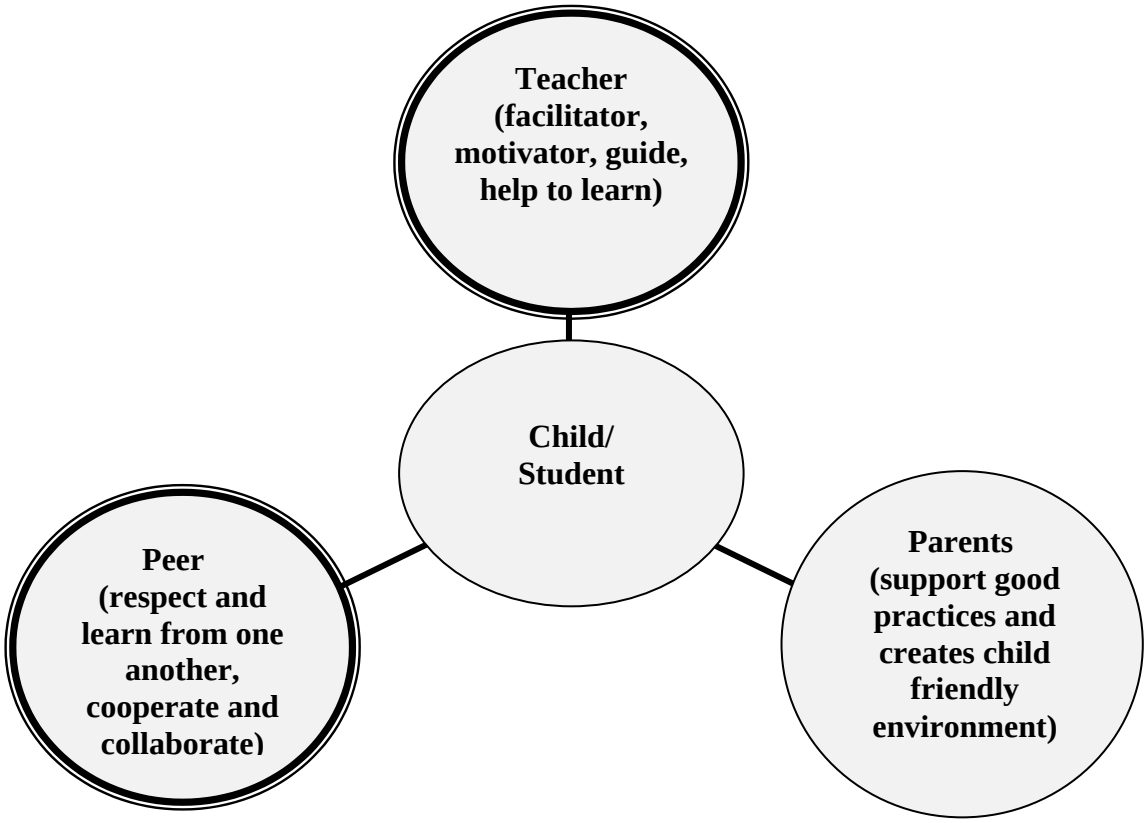
**Figure 6.1: Expectation from different agencies in children's learning (bold ring indicates priority)**




## 6.3.2 Persons in Children's Learning

In case of the persons who shape and impact on the child's learning are mainly the teachers, peers and parents (please see figure 6.2). As far as classroom is concerned it should be made clear from the very beginning that child learns from teacher as well as from peers. Teaching learning methodology that teacher uses and opportunities that are provided/organized to learn cooperatively from peers are important. For this teacher preparation on these lines is required. This requires revisions and update in the pre-service and in-service teacher training courses. Another important aspect is transfer of training skills and use of learned skills properly in the classroom which should also be given immediate attention. When there are initiatives to improve classroom teaching learning, then support from parents and community becomes essential. Therefore, next step that follows will be orienting parents accordingly.

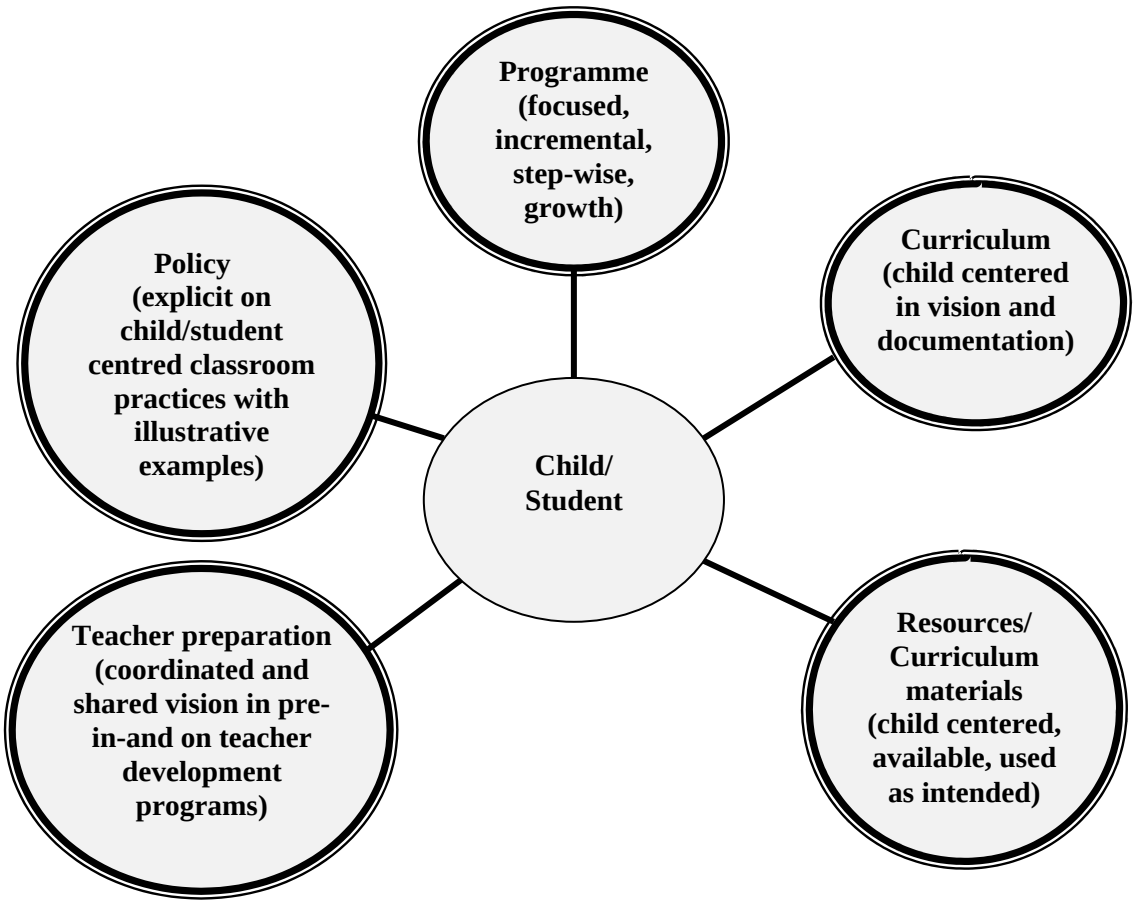
**Figure 6.2: Expectation from different persons in children's learning**




### 6.3.3 System in Children's Learning

The system plays significant role in changing and leading the course of educational development and improvement. Five such important systems have been identified – policy, programmes, curriculum, resources and teacher preparation (please see figure 6.3). These aspects are interrelated and coordinated and synergic efforts among them are essential. There would be a number of activities/actions within these systems which need to be prioritized and steps taken in the process of classroom teaching learning improvement. One binding connection in their effort should be child/student centred education as this is the one emphasised in recent educational documents in Nepalese school education. Shared vision and action priority should be planned in a coordinated manner from policy making to teacher preparation to classroom implementation.

**Figure 6.3: Expectation from different systems of education in children's learning**




Classroom teaching learning improvement should be focal activity and connecting element among the institutions working for quality improvement in the education system in Nepal. Similarly, requirement might of myriad such as physical infrastructure, curriculum, materials, teacher training, etc. Addressing all these requirements immediately might not be possible specifically due to financial constraint and lack of human resources. Therefore best way would be prioritizing activities, taking incremental steps and building upon the success.

# CHAPTER VII

# MAJOR FINDINGS AND SUGGESTIONS

This chapter summarizes the major findings on the pedagogical practices as found in the past and existing at present. This chapter also summarizes suggestions provided for the pedagogical improvements at the primary level in the Nepalese schools based on the analysis of past practices and emphasises today.

## 7.1 Major Findings

Pedagogical practices in the Nepalese primary schools have been analyzed in terms of retrospect covering time until 1984. Analysis of existing pedagogical practices covers time period from 1984 to present. Pedagogical practices and emphasises in the policy and programmes are further analyzed to suggest a proposal for improving the pedagogical practices. The major findings of this study are narrated in this section.

### 7.1.1 Educational Development and Practices at the Primary Schools in Nepal (based on document study)

- Sporadic and sluggish development of education in Nepal got a break and a tide for opening of schools came into after establishment of democracy in 1950. Before that time, there was dominance of religious and classical Sanskrit systems of education and only a small scale of modern education was initiated during Rana rule.

- Mostly religious places or a Guru's place were the venues for religious education. Pali language in the Buddhist system and Sanskrit in the Hindu system were the medium of instruction. English language entered as a medium of instruction during Rana period. Religious texts and selected literature were the main materials in the religious system of education. During Rana period limited textbooks occupied the place of curriculum for the school.

- Religious type of education, both Buddhist and Hindu, were mainly rote learning, group delivery and chorus repetition. In the religious system of education formal

type of examination system was lacking and student's progression on the lesson depended upon the teacher. During Rana period education was mainly academic and there was emphasis on drill, memorizing and lecturing. However there was development in formal assessments in terms of half yearly and yearly examinations.

- Democracy ushered Nepal in the opening of schools and development of education. First education commission, NNEPC 1954, marked the beginning of the planned development of the education sector in Nepal. Then followed a number of commissions in the development of education in Nepal such as ARNEC in 1961 and NESP in 1971.

- Separate school building and adequate classrooms and teachers number was emphasized. There was gradual development in the provisions of grade wise curriculum, textbooks, examinations, etc. But lecturing, drill, rote memorization, chorus repetition remained dominant pedagogical practices. This situation is lamented in the NEC in 1992, "The teaching learning situation in primary schools is rather depressing…. Students are encouraged to learn by rote, and assessments are made on the same basis."

- Seti project, PEDP, PEP initiatives starting back to 1984 have visible linkages in the educational development affecting initiatives today. During this period educational initiatives such as NEC, BPEP-I, BPEP-II, 'High Level National Education Commission', EFA and SSR have contributed in the educational development in Nepal. During this period, importance and emphasis on the access to quality education become prominent. A school with building, toilet, playground, garden, compound, etc. were conceived. Similarly classrooms were supposed to have adequate light, ventilation, furniture, materials, space, etc. There are gaps observed in case of physical infrastructures still schools with old buildings, inadequate classrooms, crowed classes, no toilet or separate toilets for boys and girls, poorly furnished, etc. When educational documents are analyzed, emphasis and guidelines for the physical infrastructures increase such as

classroom space per child/student increase from 0.75 sq. m. to 1.0 sq. m. and there is suggestion for 1.25 sq. m. as well. But fulfilment of such commitment is not readily observed in all the schools.

- After 1984 curriculum and textbooks were revised several times. There were several salient features of the curriculum such as grade-wise terminal objectives, primary-level terminal objectives, subject area-wise scope and sequence, provision of optional subjects, etc. There were emphasises to make curriculum more practical; relevant to day-to-day life; and to make it gender responsive, equitable and child/student friendly. With the revision in the curriculum, textbooks were also revised. There has been emphasis on use of mother tongue for instruction at the lower grades at the primary level. But lack of instructional materials as well as less use has been found. In case of pedagogical practices still rote learning, whole class teaching, lecturing, teacher dominance, examination orientation are found in practice even though individualized instruction, child/student centeredness, continuous and formative assessment, etc. are emphasized.

- Classroom pedagogical practices are shaped largely by teacher preparation and transfer of training skills. Studies on transfer of training skills at the classroom were studied in this study. It has also been reported that there is no significant differences between the classroom delivery practices of the trained and untrained teachers as well as in the achievement of students taught by these two groups of teachers have been pointed out by the studies in Nepal. Studies on the impact of training have pointed out shortcomings related to various aspects such as trainers not being able to become role models for teachers; lack of conducive classroom environment due to large class size and poor facilities; teachers not being competent enough to use student-centred methods properly; shortcomings in the training packages such as lack of activity base.

### 7.1.2 Existing Pedagogical Practices in the Nepalese Schools (based on field study)

A small scale field data/information was collected in this study in order to validate and update secondary data/information used in this study. In this section major finding related to primary data/information is presented in this section.

- In case of classroom setting it was found that seat was arranged in row and column with very less use of classroom space by the teacher and for seat with frontal facing by the students.

- Classroom display, an important instructional resource, was found present in less than half of the classes observed. One good aspect of the classroom display was that more than one fifth of the displays were students' work. However in those classes where there was some kind of display, it was mainly for decorative purposes rather than a resource to be used during classroom teaching learning.

- In 3 (5.6%) of the classes observed there was no writing board and in about 28% of the classes it was either defaced or in unusable condition. In 35% of the classes writing board was not used at all even if it was available in the classroom. In 11% of the classes teacher and students were found sharing the board for writing.

- Regarding instructional setting different aspects analyzed in this study. None of the teachers covered in this study were with a written lesson plan, but 67% of them were found delivering their lesson smoothly and confidently.

- Majority (57%) of the teachers used to start the lesson with the bell without doing any pre-lesson activities or doing any warm-up activities. Discussion or activities to introduce day's lesson was done in 17% of the classes.

- All of the observed classes were consistently in part or whole of the lesson, lecture style from teacher to students with other events/episodes of shorter duration in between. Mostly teacher oriented methods such as lecture (82%), reading and paraphrasing (41%), reading from book (19%), drill (14%), memorization (11%) and recitation (5%) were used.

- Classroom communication was also mostly one way from teacher to students which was about 86%. Communication episodes (14%) from students to teacher were also limited to content matter of the lesson. Opportunity for the students to interact, discuss, opine was not in practice.

- Responses required by the teachers were mostly formal correct responses, usually a standard one that every student should be able to reproduce. Teachers were found to ask 9 questions during one class on an average. Out of 9 questions asked 8 were at knowledge/recall level and 1 at the comprehension level. On an average, students correctly answered 6 Knowledge level questions and 0.7 Comprehension level questions as against 8 Knowledge level questions and 1 Comprehension level question asked by the teachers.

- In case of teacher's encouragement, only 12 of the teachers were found encouraging students to express which come to 1.5 episodes on an average per lesson/class.

- The quality of students' learning was found grossly dictated by the classroom teaching learning practices – reading from the textbook, answering the questions in the exercises in the textbook, practicing the important questions and answers, memorization of the content matter (letters, numbers, tables, list, dates, names, word meaning, etc.).

- Perception from the field also supports these findings.

### 7.1.3 Suggested Pedagogical Practices and Theoretical Implications

Recent educational documents were also studied with respect to suggestions on the pedagogical practices and analyzed these suggestions against theatrical background. The findings were as following:

- The major documents related to CFS framework, EFA and SSR/SSRP provide frame for pedagogical practices at the Nepalese primary school classroom in terms of number of students, space, seating material, furniture, instructional material, display, etc. for the improvement of quality of teaching learning at the classroom.

In these documents theoretical support in the suggested aspects are neither included nor related programme documents such as curriculum and teacher preparation adequately reflect on these matters.

- These documents emphasize child/student centred approaches in general, but there is lack of adequate linkage and uniformity among these documents. This gap is also observed in terms of teaching learning methods, teacher dimension and student dimensions. In these suggested instructional practices also theoretical support is largely lacking in these documents.

## 7.2 Limitations of the Study

Limitations are those conditions in which the researcher has no control over, but which might influence the conclusions of the study and generalization of the study (Best and Kahn, 1993). As the study attempted to cover past endeavours in the primary education in Nepal based on available documents and extrapolate past and existing practices to propose pedagogical practices for the future several aspects imposed limitations on this study. In this respect the study had the following limitations:

1. Twenty four schools from 12 districts of Nepal were covered to study existing pedagogical practices in the primary schools. This sample might not be large, but it has been used as supportive information for triangulation.

2. The classroom observation was not focused on any particular grade or subject so that comparison of the classroom teaching learning by grades or subjects has not been done in the study. The intention was to get an overview of classroom teaching learning practices in general.

3. Retrospect analysis has been mainly based on the document study and perceptual information up to the time period of 1971 for which mostly education commission reports are available. Additional sources of information are generally lacking which have restricted the study in triangulating information related to pedagogical practices till 1971. The implementation of the intended pedagogical practices could not be narrated based on evaluation studies and has been supplemented with perceptual information from the respondents only.

## 7.3 Suggestions

This study provides suggestions in two terms – general suggestions based on reflection on the document study, field findings and suggestions based on the pedagogical improvement proposal presented in this study.

- Put the students at the centre of educational process in which various agencies, persons and systems play vital roles.

- Activities/actions within various agencies, persons and systems should be prioritized. Implementation should be step-wise, coordinated and linked in a chain rather than one time initiative.

- Start small, experiment and expand the successful should be the motto.

- Pedagogical practiced as envisioned should be reflected in pre-service and in-service teacher preparation programmes as well as in curriculum and assessment areas.

- There should be coordinated effort, shared vision and action priority in coordinated manner from policy making to teacher preparation to classroom implementation.

This study also provides following specific suggestions:

- It is important for the teacher to be skilful in planning and using available space in sensible and purposeful manner in best possible ways. Reducing class size or providing larger space will be supportive, but these aspects should not be promoted as determinants for quality teaching learning. Envisioned changes/improvements should be applied/practiced from now on the basis of the physical aspects which are durable and last for longer period such as seating materials, classroom construction, etc.

- Orient the teachers on priority basis – first how to deliver classroom teaching learning effectively using repository of students' experiences as learning material and make the students share and interact with each other; secondly, using no-cost

materials collected by teacher and students; thirdly selecting low-cost materials which will be required to develop complete materials by themselves; and lastly those materials that need to be bought from market should be from available fund at the school.

- Provide teachers with knowledge and skills in managing and using classroom display for instructional purposes rather than making it only a show off activity.

- There is a need first to clarify envisioned pedagogical approaches and then suggested implementation strategy. It will be worthwhile to plan a step by step implementation and development plan and execute it in incremental way with emphasis on building upon successes and expanding.

- It is necessary to organize skill development in the teacher preparation programs with adequate modelling and practice. Demonstration of the method followed by debriefing and discussion would be helpful in skill development.

- Teacher preparation courses should provide room for variety of teaching learning strategies. Variety of teaching learning methods can be employed such as reflective teaching (Pollard, 2006); discovery and experiential learning; topic and project work (Cohen, 1996); cooperative learning, writing and inquiry, critical listening (Crawford, 2005); integrated strategy instruction, instrumental enrichment, bright start, Planning Assessment Simultaneous and successive model (Ashman and Conway, 1997); task setting and differentiation (Kerry, 2002); concept attainment, advance organizers, inductive thinking (Joyce and Weil, 1980); problem based instruction (Arends, 2001); etc.

- Clustering related pedagogical strategies/methods would be helpful first to provide theoretical orientation and then lead to skill development. Even if all the strategies/methods could not be practiced, practice in selected strategies/methods could help to understand other strategies/methods in the cluster/theme.

- It is important for the curriculum developers and teacher educators to keep themselves updated with the pedagogical researches and innovations as well as adopt and try out best practices in the system.

- Expectation from the teachers to be effective should not be narrated as speech, slogan or wishes. It is essential firstly to conceptualize roles of the teacher in terms of required skills which can be employed at the classroom level and secondly incorporate these in the teacher preparation programs for skills development rather than including these concepts as content matters only.

- In order to cater to the needs of children/students to maximise their learning, several factors play roles. It is important to identify them and prioritize actions from what is possible now and what should be achieved and how they could be achieved in time bound strategy manner.

## 7.4 The Educational Implications of the Study

This study covers one of the most important aspects of quality education which is being emphasised in the education system in Nepal. This study would be helpful in the following ways:

- This study indicated a huge gap in planning, envisioning and actual implementation. This study could be helpful to policy makers and planners to see that problem is mostly on the implementation than plan. Therefore, planners need to focus more on planning of 'implementation' and 'implementation of implementation as planned'.

- Analysis of some of the innovative programmes/projects done in this study and lessons that could be learned from them may be helpful for the planners and policy makers to address required elements for the successful implementation of the plan/programme.

- Analysis presented on the different aspects of teaching learning as suggested/intended in the policy and programme documents against

theoretical/conceptual implications could be helpful to choose better measures for classroom teaching learning improvement with adequate theoretical backup.

- Pedagogy is one of the major content areas in the 'Education' course from secondary level to University level. Description presented in this study on 'learning' and 'pedagogy' could be helpful to the students of 'Education'.

- There are descriptions and references cited in this study which do not required many materials for interactive and active classroom teaching learning. These pedagogical strategies can be emphasized in resource crunch conditions.

- Findings and suggestions of this study could also be helpful to improve pre-service and in-service teacher preparation courses in terms of content areas to be included as well as approaches for delivery and development of skills.

- This study pointed out that there are various agencies related to pedagogical development and implementation such as teacher preparation, curriculum, and assessment. These need to have shared vision and coordinated effort to translate pedagogical vision into classroom action. Therefore, close coordination among related agencies/institutions need to be established and be functional.

- Analysis of the transfer of training skills into classroom indicated need of monitoring, supervision and technical backstopping to the teachers. Agencies/institutions involved in these aspects need to be functional.

## 7.5 Suggestions for Further Study

As one study could not cover all related aspects of quality education, there are always areas to study for improvement of education system. This study suggests following aspects to be studied in depth in order to improve classroom teaching learning in the Nepalese education system:

- Relation of physical facilities and quality of classroom teaching learning.

- Transfer of training skills in the classroom.

- Classroom questioning practices of the teachers and its implication on the quality of learning.
- Experimental study on particular teaching learning methodology (such project method, critical thinking methodology, cooperative learning, reflective teaching, problem based approach, etc.).
- Appropriate teaching learning practices in (grade teaching, multi-grade teaching, crowded class, etc.) conditions.
- Curriculum for child/student/learner centred education.
- Formative assessment practices for improving learning.
- Retrospect and prospect study can be undertaken for various educational themes of different level of education such as
    - Retrospect and prospect study on curriculum
    - Retrospect and prospect study on assessment practices
    - Retrospect and prospect study on physical infrastructure
    - Retrospect and prospect study on teacher training
    - Retrospect and prospect study on (Technical and Vocational Education, Higher Education, Literacy, Educational Management Practices, Education Policy, etc.)
    - Retrospect and prospect study on specific educational programmes (disadvantaged group, leadership, female education, scholarship, out-of-school children, special education, etc.)

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[1] Information on the parenthesis at the end of each of the reference indicates pages studied by the researcher.
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# APPENDIX

## Appendix 1: Tools of the study

### A. Retrospect Study

**Semi-structured Interview Questions**
To collect perceptual information from the stakeholders on the pedagogical practices in the primary schools at the retrospect level (covering time period before 1984)

**Brief the respondent about the study**
Namaste Sir/Madam. I am a Ph. D. student doing my Ph. D. from Lucknow University under the supervision of Prof. Akhilesh Chaube who is currently Dean of the Faculty of Education there.

My study is on 'A Retrospect and Prospect Study on Pedagogical Practices at the Primary Schools in Nepal'. We intend to analyze pedagogical practices at the primary schools as practiced in the past as well existing practices. Intended pedagogical practices will also be narrated from the review/study of current plan and policy documents. Based on the retrospect and existing practices analysis, this study will propose a pedagogical framework for the Nepalese primary level.

**Request the respondent for his/her time and support in the study**
Therefore I humbly request to spare some (about an hour or so) of your valuable time to me and provide your valuable experiences, thoughts and suggestions on this matter. I also request you for your permission to record responses to reconfirm if I have missed any important part of the interview to note down. Please also give me your permission to include your name in the list of respondents in my thesis.

**I) Experts involved in the educational planning and development before 1984**
**Semi-structured Interview Questions**
**(**Questions will be asked and noted down in the note copy)

1. What was your involvement in the educational planning and development in Nepal (when, position, duration, how the team worked, etc.)?
2. What was the general classroom pedagogical practices (classroom setting, physical aspects, materials, teacher preparation, curriculum, teaching learning practices, etc.) during ..... (time of experts' contribution)?
3. What were the problems existing at that time that related to classroom pedagogical practices?
4. What were the processes adopted by the team to identify problems?
5. What were the suggestions provided by the team to improve classroom pedagogical practices at that time?

6. Which of the suggestions provided by the team to improve classroom pedagogical practices were implemented? In what way these were implemented? How effective was the implementation? What was the impact? Etc.
7. Which of the suggestions provided by the team to improve classroom pedagogical practices were not implemented? Why? What is your perception on non-implementation of the suggestion?

====

Now I request you to provide me your perception regarding the pedagogical practices you have experienced as a student and a stakeholder in the education sector

8. What was the educational atmosphere you were schooled/educated in?
9. What were the pedagogical practices then?
10. How do you perceive these experiences? Liked/disliked/reasons/incidences/ reminiscences, etc.?
11. How do you relate present classroom pedagogical practices with the past practices?

====

12. Now I would like to request you to provide your valuable suggestions how pedagogical practices can be improved in the primary school classrooms in Nepal? (what, how, why, etc.)
    Physical infrastructure:
    Curriculum:
    Medium of instruction:
    Instructional materials:
    Assessment practices:
    Classroom pedagogy:

**II. Head teachers and teachers of the period (i.e. before 1984)**

**Semi-structured Interview Questions**

**(**Questions will be asked and noted down in the note copy)

1. What was your involvement in the educational sector in Nepal (when, position, duration, etc.)?
2. What was the general classroom pedagogical practices (classroom setting, physical aspects, materials, teacher preparation, curriculum, teaching learning practices, school environment, school community, etc.) during ..... (time of respondents involvement)?
3. What were the problems existing at that time in your institution that were related to classroom pedagogical practices? How these have impact in classroom teaching learning and in the students' learning?
4. Was there any attempt/support/suggestion to improve classroom teaching learning? What? Who? How? What impact?

=======

5. How do you find present classroom pedagogical practices in the primary schools in Nepal?

6. How do you relate present classroom pedagogical practices with the past practices? Difference? Which one better, why?
7. Now I would like to request you to provide your valuable suggestions how pedagogical practices can be improved in the primary school classrooms in Nepal? (what, how, why, etc.)
   Physical infrastructure:
   Curriculum:
   Medium of instruction:
   Instructional materials:
   Assessment practices:
   Classroom pedagogy:

**III. People having schooling during the period (i.e. before 1984)**

**Semi-structured Interview Questions**

**(**Questions will be asked and noted down in the note copy)

1. What level of education you have? In what type of school you were schooled in or the way you were educated?
2. What was the general classroom pedagogical practices (classroom setting, physical aspects, materials, teacher preparation, curriculum, teaching learning practices, school environment, school community, etc.) during ..... (time of respondents involvement)?
3. What has been your experience in the school? About teacher? Your liking, disliking? Reasons?
4. What important things you think you had learnt in the school? Why?

======

5. How do you find present teaching learning in schools now compared to the school you were in or the way you were educated? Difference? Which one better, why?
6. Now I would like to request you to provide your valuable suggestions how pedagogical practices can be improved in the primary school classrooms in Nepal? (what, how, why, etc.)
   Physical infrastructure:
   Curriculum:
   Medium of instruction:
   Instructional materials:
   Assessment practices:
   Classroom pedagogy:

## B. Existing Practices Study

### Semi-structured Interview Questions

To collect perceptual information from the stakeholders on the pedagogical practices in the primary schools at the retrospect level (covering time period from 1984)

### Brief the respondent about the study

Namaste Sir/Madam. I am a Ph. D. student doing my Ph. D. from Lucknow University under the supervision of Prof. Akhilesh Chaube who is currently Dean of the Faculty of Education there.

My study is on 'A Retrospect and Prospect Study on Pedagogical Practices at the Primary Schools in Nepal'. We intend to analyze pedagogical practices at the primary schools as practiced in the past as well existing practices. Intended pedagogical practices will also be narrated from the review/study of current plan and policy documents. Based on the retrospect and existing practices analysis, this study will propose a pedagogical framework for the Nepalese primary level.

### Request the respondent for his/her time and support in the study

Therefore I humbly request to spare some (about an hour or so) of your valuable time to me and provide your valuable experiences, thoughts and suggestions on this matter. I also request you for your permission to record responses to reconfirm if I have missed any important part of the interview to note down. Please also give me your permission to include your name in the list of respondents in my thesis.

### I. Experts and education ministry personnel involved in the educational planning and development

### Semi-structured Interview Questions

**(**Questions will be asked and noted down in the note copy and recorded in the tape as well)

1. What was your involvement in the educational planning and development in Nepal (when, position, duration, how the team worked, etc.)?
2. What was the general classroom pedagogical practices (classroom setting, physical aspects, materials, teacher preparation, curriculum, teaching learning practices, etc.) at the time of PEP?
3. What were the problems before PEP/at the beginning of PEP time that related to classroom pedagogical practices?
4. What were the processes adopted by the team to identify problems?
5. What were the suggestions provided by the team to improve classroom pedagogical practices at that time?
6. Which of the suggestions provided by the team to improve classroom pedagogical practices were implemented?
   In what way these were implemented?
   How effective was the implementation?
   What was the impact? Etc.

7. Which of the suggestions provided by the team to improve classroom pedagogical practices were not implemented?
   Why?
   What is your perception on non-implementation of the suggestion?
8. What improvements (if any) you have observed in the classroom pedagogical practices at present?
   Which factors have played important role in this?
   What role have the projects/programs have played in the improvement of classroom pedagogy since PEP in Nepal?
9. Now I would like to request you to provide your valuable suggestions how pedagogical practices can be improved in the primary school classrooms in Nepal? (what, how, why, etc.)
   Physical infrastructure:
   Curriculum:
   Medium of instruction:
   Instructional materials:
   Assessment practices:
   Classroom pedagogy:

## II. Head teachers and teachers of the period (i.e. after 1984)

**Semi-structured Interview Questions**

**(**Questions will be asked and noted down in the note copy)

1. What was your involvement in the educational sector in Nepal (when, position, duration, etc.)?
2. What was the general classroom pedagogical practices (classroom setting, physical aspects, materials, teacher preparation, curriculum, teaching learning practices, school environment, school community, etc.) during ..... (time of respondents involvement)?
3. What were the problems existing at that time in your institution that were related to classroom pedagogical practices? How these have impact in classroom teaching learning and in the students' learning?
4. Was there any attempt/support/suggestion to improve classroom teaching learning? What? Who? How? What impact?
5. How do you find existing pedagogical practices in Nepalese primary schools?
6. How do you relate present classroom pedagogical practices with the past practices? Difference? Which one better, why?
7. What improvements (if any) you have observed in the classroom pedagogical practices at present?
   Which factors have played important role in this?
   What roles have the projects/programs have played in the improvement of classroom pedagogy since PEP in Nepal?
8. Now I would like to request you to provide your valuable suggestions how pedagogical practices can be improved in the primary school classrooms in Nepal? (what, how, why, etc.)
   Physical infrastructure:

Curriculum:
Medium of instruction:
Instructional materials:
Assessment practices:
Classroom pedagogy:

## III. People having schooling during the period (i.e. after 1984)

**Semi-structured Interview Questions**

**(**Questions will be asked and noted down in the note copy)

1. What level of education you have? In what type of school you were schooled in or the way you were educated?
2. What was the general classroom pedagogical practices (classroom setting, physical aspects, materials, teacher preparation, curriculum, teaching learning practices, school environment, school community, etc.) during ..... (time of respondents involvement)?
3. What has been your experience in the school? About teacher? Your liking, disliking? Reasons?
4. What important things you think you had learnt in the school? Why?
5. How do you find present teaching learning in schools now compared to the school you were in or the way you were educated? Difference? Which one better, why?
6. Now I would like to request you to provide your valuable suggestions how pedagogical practices can be improved in the primary school classrooms in Nepal? (what, how, why, etc.)

   Physical infrastructure:
   Curriculum:
   Medium of instruction:
   Instructional materials:
   Assessment practices:
   Classroom pedagogy:

**C. Classroom Teaching Learning Observation Form**

## 'A Retrospect and Prospect Study on Pedagogical Practices at the Primary Schools in Nepal'

Ph. D. Dissertation by Ganesh B Singh, Lucknow University
under the supervision of Prof. Akhilesh Chaube

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**Classroom Teaching Learning Observation and Follow-up Interview Form**
(Observe and narrate the classroom teaching learning activities)

| | |
|---|---|
| Name of the teacher: | Grade observed: |
| Name of school and address: | Subject: |
| | Date: |

---

1. **Physical facilities of the school and the classroom**
   **a. School** (building, space, location in the community, playground, garden, compound wall, maintenance, etc.)

   .....

   .....

   .....

   **b. Classroom** (space, furniture, seat provision, seat arrangement, ventilation, light, etc.)

   .....

   .....

   .....

2. **Curriculum**
   **a. Availability and use of curriculum in planning and delivery of the curriculum** (cross check observation with follow-up interview with the teacher.)

   .....

   .....

   .....

   **b. Teacher's perception on need and usefulness about the curriculum** (follow-up question.)

   .....

   .....

   .....

**b. Extra-curricular activities in the schools (provision and practice)**

.....

.....

.....

3. **Medium of Instruction**
   **a. Used in the observed class:** .....
   **b. Teacher's perception on medium of instruction** (need for mother tongue, complexity, suggestion, etc.)

.....

.....

.....

4. **Instructional Materials**
   **a. Availability of materials in the classroom (**writing board, display, instructional materials, curriculum, textbook, reference books, book corner, etc.)

.....

.....

.....

**b Use of instructional materials in the classroom delivery** (cross check observation with follow-up interview with the teacher.)

.....

.....

.....

**c. Teacher's perception on need and usefulness about the instructional materials** (follow-up question.)

.....

.....

.....

5. **Classroom Pedagogy**
   **a. Pre-lesson activities** (lesson plan, review, questioning, motivating, linking, etc.)

.....

.....

.....

**b. During lesson - methods** (dominant three methods – lecture, paraphrasing, question answer, discussion, demonstration, storytelling, role play, dramatization, drill, etc.)

.....

.....

.....

**c. During lesson - Feedback** (when, purpose, strategy, etc.)

.....

.....

.....

**d. Students' participation in the classroom teaching learning** (involved activities, modality, purpose, use, questions to and from students, etc.)

.....

.....

.....

**e. Teacher's perception on existing practices** (strength, shortcoming, suggestion, etc.)

.....

.....

.....

**6. Assessment Practices**

**a. Classroom questions** (purpose, questioning strategy, format, use, etc.)

.....

.....

.....

**b. Class work, Homework** (purpose, format, use, etc.)

.....

.....

.....

**c. Examination schedule** (when, purpose, use, etc.)

.....

.....

.....

**d. Teacher's perception on existing practices** (strength, shortcoming, suggestion, etc.)

.....

.....

.....

**Appendix 2: List of sample schools**

| District | School |
|---|---|
| 1. Sankhuwasahava | 1. Himalaya Higher Secondary School, Khadbari |
| | 2. Saraswoti Lower Secondary School, Chainpur |
| 2. Rasuwa | 3. Dhunche Secondary School, Dhunche |
| | 4. Bhimali Primary School, Bhimali |
| 3. Humla | 5. Mansorobar Higher Secondary School, Simikot |
| | 6. Raling Secondary School, Bargaun |
| 4. Dhankuta | 7. Rashtriya Saraswati Primary School, Dhankuta |
| | 8. Margeswari Primary School, Dhankuta |
| 5. Uadayapur | 9. Triveni SS, Katari |
| | 10. Triyuga HSS, Gaighat |
| 6. Lalitpur | 11. Pragati Shiksha Sadan, Kupondel |
| | 12. Adarsha Saul Higher Secondary School, Shaibu |
| 7. Nuwakot | 13. Bhairum Higher Secondary School, Trishuli |
| | 14.Bhawani Higher Secondary School, Rani Pauwa |
| 8. Kaski | 15. Chandika Primary School, Batulechour, Ambare |
| | 16. Mahendra Primary School, Nagdada |
| 9. Doti | 17. Shree Padma Public Higher Secondary School, Silgadi |
| | 18. Durga Primary School, Khairetola |
| 10. Morang | 19. Janapath Ma. Vi., Biratnagar |
| | 20. Panchakanya Primary School, Baijanathpur |
| 11. Parsa | 21. Ne. Ra. Pra, Vi., Dewariya |
| | 22. J P Chatarbedi Primary School, Birjunj |
| 12. Kanchanpur | 23. Bhrikuti Ma. Vi., Mahendranagar |
| | 24. Bhanu Higher Secondary School, Chadani Dodhara |

## Appendix 3: List of the respondents

Prof. Tirtha Raj Parajuli
Prof. Yagya Raj Pant
Prof. Swayam Prakash JB Rana
Nilkantha Shrestha, retired head teacher
Haider Ali, retired head teacher
Bilques Banu, retired teacher
Yamuna Dahal, head teacher
Abbu Harera Khan, teacher
Bhakta Bahadur Somai, teacher
Bhandari R. Dhansingh, teacher
Bimala Bhatta, teacher
Mina Rai, Teacher
Pushpa Shrestha, teacher
Achyuta Pokharel, head teacher
Sita Shrestha, teacher
Doj Bastola, teacher
Chakra P. Mahara, teacher
Devi Hamal, teacher
Dharmawati Khadka, teacher
Goma Oli, teacher
Govinda Pyakurel, teacher
Ash Kumar Rai, teacher
Gyan Bhakta Maharjan, teacher
Harihar Aryal, head teacher
Indra Bahadur Ter, teacher
Kamal Shakya, teacher
Bhim Sapkota, head teacher
Rajendra Prasad Das, teacher
Baleshwor Chaudhari, head teacher
Laxman Panta, teacher
Lekh Nath Budhathoki, teacher
Maheshwor Pd. Pandey, teacher
Shoba Sapkota, teacher
Mathura Devi Khanal, teacher
Govind Shrestha, head teacher
Subarna Shrestha, teacher
Dhan Bdr. Malla, retired teacher
Pushpa Rijal, teacher
Raj Kumar Shrestha, teacher
Sabina Khadka, teacher
Shishir Kumar KC, teacher
Goma Khatiwada, teacher
Shiva Chapagain, teacher
Sita Bhattarai, teacher
Kiran Devi, teacher

Sudip Chhetri, teacher
Y. B. KC, teacher
Youba Raj Khatri, teacher
Gyanendra Ban, MOES
Nirmala Ghimere, MOES
Shalikram Bhusal, MOES
Sunil K Adhikari, MOES
Guru Prasad Mainali, MOES
Dillishwor Pradhan, MOES
Mitranath Gartula, MOES
Kul Pd. Khanal, MOES
Khagendra Paudel, MOES
Rambandhu Subedi, MOES
Gopal Bhandari, MOES